ONE OF THIRTEEN FOR GHANA

See Advert. Page 6

MODERN TRANSPORT

"THE TIMES" OF THE TRANSPORT WORLD

CO-ORDINATION SCHEME FOR COPENHAGEN TRANSPORT

See Page 3

VOL. LXXIX No. 2034 [*Registered at the G.P.O. as a newspaper*] LONDON, MARCH 22, 1958 PRICE NINEPENCE

CURRENT TOPICS

Award to London Busmen

IMPROVEMENTS in vehicle design and equipment in recent years have made driving easier and more comfortable, but street congestion has increased, and nowhere more so than in the vast area of Central London, making less enviable—it is claimed—the lot of the busmen employed there. The recruitment of bus crews has become somewhat difficult. This explains the Industrial Court's award of an extra 8s. 6d. a week to the 33,957 London busmen in the Central fleet and of nothing to the other 14,638 London Transport bus employees, comprising Country bus and Green Line coach crews and the men in the garages. An all-round advance of 25s. a week had been sought. Another intention may have been to help restore the differential which the Central busmen enjoyed up till 1939. The award offers no encouragement to provincial busmen. It implies a desire to recognise exceptional merit and to eschew wages increases because of a rise in the cost of living; it therefore accords with Government policy. Its importance lies in the pattern it offers to proceedings now current before the Railway Staff National Tribunal, of which Sir John Forster, K.C., is also the chairman, and to others which are pending.

Cuts in Service Essential

THE L.T.E., when it told the men's negotiating committee last Monday of its readiness to accept the award as it stood if the union did, added that, while awaiting a reply, it would consider how the £1 million a year involved could be made good out of service cuts and other economies; the Government warned the Transport Commission last October that no increase could be made in the advances due to it under the Railway Finances Act of 1957. In fact, the award had hardly been published before the Minister of Transport was telling a political meeting at Sevenoaks that wages increases, if granted, must come from economies and increased efficiency and not higher fares. The award was for London Transport and the union to consider, and not for the Government, he said. He was careful to add that the Government was not a disinterested party: it is out to defeat inflation. It must also look after the public and might well step in if there were complaints about inadequacy of service. The L.T.E. therefore stands to be hit both ways, a fact which ought to weigh heavily with Mr. Cousins and his colleagues, although there is evidence of their continued determination to seek more than the 8s. 6d. and to have the increase applied to the employees excluded from the award in the Country section and what might be called the ground staff.

Melbourne Underground Scheme

PROPOSALS for an underground railway in the square of streets in the centre of Melbourne have come rather closer to reality with the promised formation of a committee representing the Melbourne City Council, the Town and Country Planning Board, the State Traffic Commission, the Victorian Railways and the Melbourne and Metropolitan Tramways Board. It is thought that traffic and the progress of necessary preliminary schemes on surface suburban railways will justify a start not later than 1965. Construction would then take three to five years. The project, an underground railway from North Melbourne to Richmond, going under Lonsdale Street on the other side of the city centre from the existing Spencer Street—Flinders Street railway, was first mooted in 1925. Included in the city's first town plan in 1929, the idea was revived in 1945; some preliminary work was done in 1949 and the State cabinet decided to inquire into it urgently the following year. A recommended route was endorsed by the Board of Works in 1954 and was incorporated in Melbourne's master plan. Three stations are proposed along Lonsdale Street, at the crossings of Exhibition, Elizabeth and King Streets. The estimated cost is £21 million, of which the Victorian Government appears willing to sustain two-thirds.

Towards Two Tunnels

THE past few days have brought news of progress of two important under-river road tunnels. Last week the Minister of Transport and Civil Aviation announced in the House of Commons that he had agreed in principle to the scheme for the Tyne tunnel which is to be built near the present Jarrow—Howdon ferry. It will be nearly a mile long and, with some four miles of approach roads, the total cost is estimated at nearly £13 million. It will have a single carriageway and be for the exclusive use of motor traffic, which will be charged tolls. It may be recalled that twin tunnels for cyclists and pedestrians are already in existence, having been completed in 1951 under the 1946 Act which also authorised the vehicular tunnel. Meanwhile, a progress report has been issued on what has been achieved in the past 12 months on the construction of the Dartford—Purfleet tunnel. More than 730 ft. has been built since the work started a year ago, and there is hope that the actual tunnel will be finished in about two years. There will, however, remain a two-year job on the inner lining, constructing the road through the tunnel and completing the ventilation system and other services.

Progress of English Electric

AT a time when there are reports in various quarters of the severe problems facing large engineering concerns, the value to the English Electric Co., Limited, of its widespread interests were demonstrated clearly by its chairman, Sir George H. Nelson, in his speech at the annual general meeting. The consolidated results again showed an improved position with the balance on trade account up by £765,000 to £10,233,840, despite losses incurred by the Vulcan Foundry and Robert Stephenson group in Britain and by Canadian Marconi across the Atlantic. The chairman explained that the cause of the former was a change-over of manufacturing capacity from steam to diesel-electric and electric locomotives and to diesel engines of English Electric design. The change in the principles of railway operation throughout the world had brought this about and both companies were short of work on steam locomotives in the early part of the year, while the British Railways modernisation programme had not then developed sufficiently to replace these. Sir George had something to say about increased efficiency and pointed out that warnings had been issued from time to time that higher wages without an equivalent increase in output would price the company out of the export markets. He was glad to say that other factors, such as improvements in design and production methods and increased volume of business, had so far prevented this happening, but although these remedies had made it possible partly to counteract the rising wage levels they could not do so indefinitely at a time when competition was becoming steadily more fierce in the overseas markets. Requests for higher wages where no equivalent increase in output or efficiency were possible must therefore be restrained. Research remained one of the foremost activities of the English Electric group. By deep thought on the most advanced problems, supported by immense capital expenditure, new fields were opened and existing ones improved. By such efforts the company kept ahead of its competitors over the great range of its projects and just because of this wide range and because of the successful results of the huge research and development effort, it was able to carry out its basic policy of maintaining stability of employment for its staff and work people.

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Floating Containers for Midland Canals

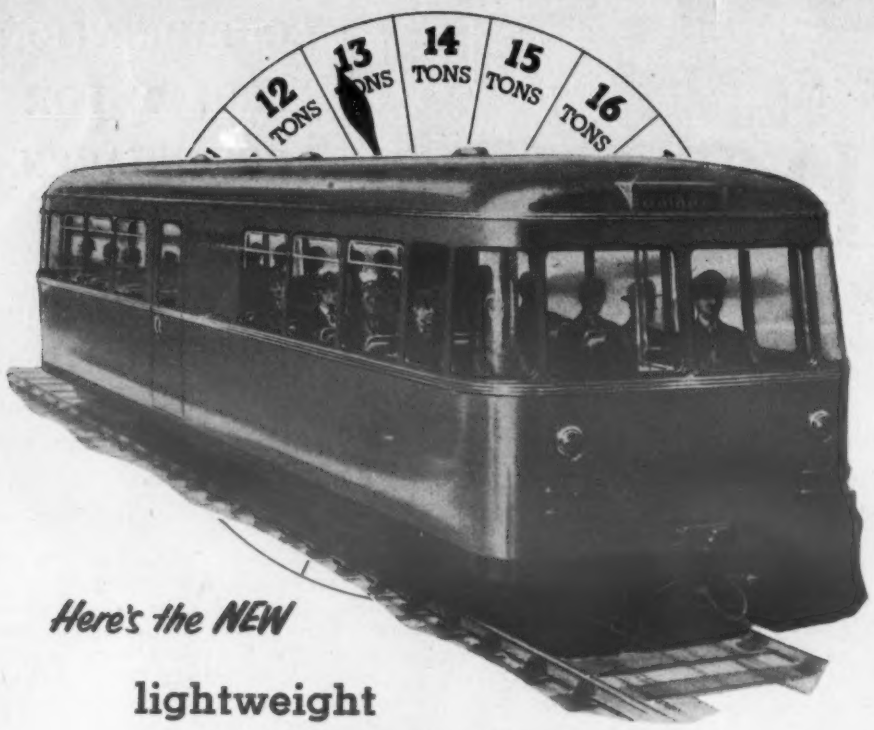
THIS week British Waterways has demonstrated to Midlands traders and industrialists a new and experimental type of floating container which has been evolved for the speedy and economic movement of freight traffic over 100 miles of narrow waterways in the Birmingham and Black Country area. This excellent idea is based on the compartment boat system of container trains which has proved so successful on the wide Aire and Calder Navigation. The adaptation is for the 7-ft. waterways of the Midlands and the containers are specially designed to carry loads which cannot be handled economically by the 25-ton narrow boat. It can be towed by a tug either singly or with others and can be lifted easily from the water by crane or slipway direct to loading or unloading point, or on to a trailer or other vehicle. There is in the area a considerable volume of short-haul traffic passing in quantities up to about two tons between canal-connected premises; for traffic of this kind we believe the floating container system to have real advantages. The need for a high standard of packing is eliminated, there is a high degree of immunity from loss or damage, and the costs of loading, stowing and unloading are minimised. Five prototype containers—three 7 ft. long, one 10 ft. and one 17 ft., with capacities of 3, 5 and 8 tons respectively, and all of 7-ft. beam to allow passage through the locks of narrow waterways—were demonstrated on Tuesday and Wednesday last. The prototypes are of plywood, but it is envisaged that production containers would be constructed of either glass fibre, plastics or aluminium. Watertight doors, designed to open outwards, give easy access for loading or discharge. This well-conceived enterprise by British Waterways merits close attention by industrial traffic managers with Birmingham area works.

Reflections on a Delay

PROGRESS is demonstrably not always in a forward direction, and this depressing thought often obtrudes itself in contemplating transport affairs. Last Saturday, while spending 50 precious minutes in traversing a 2½-mile section of road in an urban area we had plenty of time to reflect that at one time the football matches in that town were catered for by the municipal trams. Although they waited bumper to bumper until the crowds came flooding out, there were perhaps not enough cars to lift half the male population and some poor chaps might have to wait 20 minutes or so to be picked up. Later the motor buses and trolleybuses performed the same function in gathering up the football enthusiasts and carrying them back to their firesides or to their evening entertainments—and still they were cursed, no doubt, by those who had to stand in the cold before getting away. Today they are less called upon than they were because a motoring crazy world jams all the roads round the ground with cars during the match and, for that matter, long after. While this mass of cars filters away from the match, public transport, not to mention through traffic between far distant points, of which we were one insignificant unit, is completely disorganised. Except that before the motor car era we should not have been there at all ourselves, we could sigh for the days when the devotees of football walked to and from the game or used public transport and liked it. It took them (and us) less time in those days between the ground and home.

A Million Soundless Voices

QUITE early in its existence British Road Services decided that the telephone, while a splendid form of communication for transport undertakings, could also be a very expensive instrument if it was resorted to for all urgent or not-so-urgent messages in a nation-wide undertaking with innumerable service points. Steps were accordingly taken to expand the teleprinter and telex systems as a low-cost medium for transmission of all material of a factual character not demanding two-way conversation. Numerous independent hauliers are, of course, using teleprinter links between their depots, but the new B.R.S. London teleprinter centre in City Road (described in this issue) represents telecommunications in an exalted form and reflects the complex character of the undertaking, with its 1,000 depots and offices throughout the country. Moreover, it represents the last word in technical progress, combining duplex tape relay channels with automatic transmitters in such a way as to reduce overall message transit times to the minimum. One can hear the cynics saying that the one million messages per annum that this centre passes represent the bureaucratic time-lag dividing thought from action, but clearly, apart from its domestic value, there is another side to the picture—that is the customer goodwill that comes from being able to track down a laggard consignment quickly and economically, or from the sorting out of unlabelled or wrongly addressed goods. That the scope for the teleprinter is by no means exhausted is shown by the fact that it is experimentally being used for sending accounting data direct into computer centres for the making up of invoices. Ultimately line capacity may prove the only limiting factor in its use, although there are at the moment substantial reserves. Credit for the continuing evolution of this nationwide network from its infancy lies in great measure with Mr. C. Y. Hardie, the genial yet dynamic special services (or should it be silent services?) officer of British Road Services.



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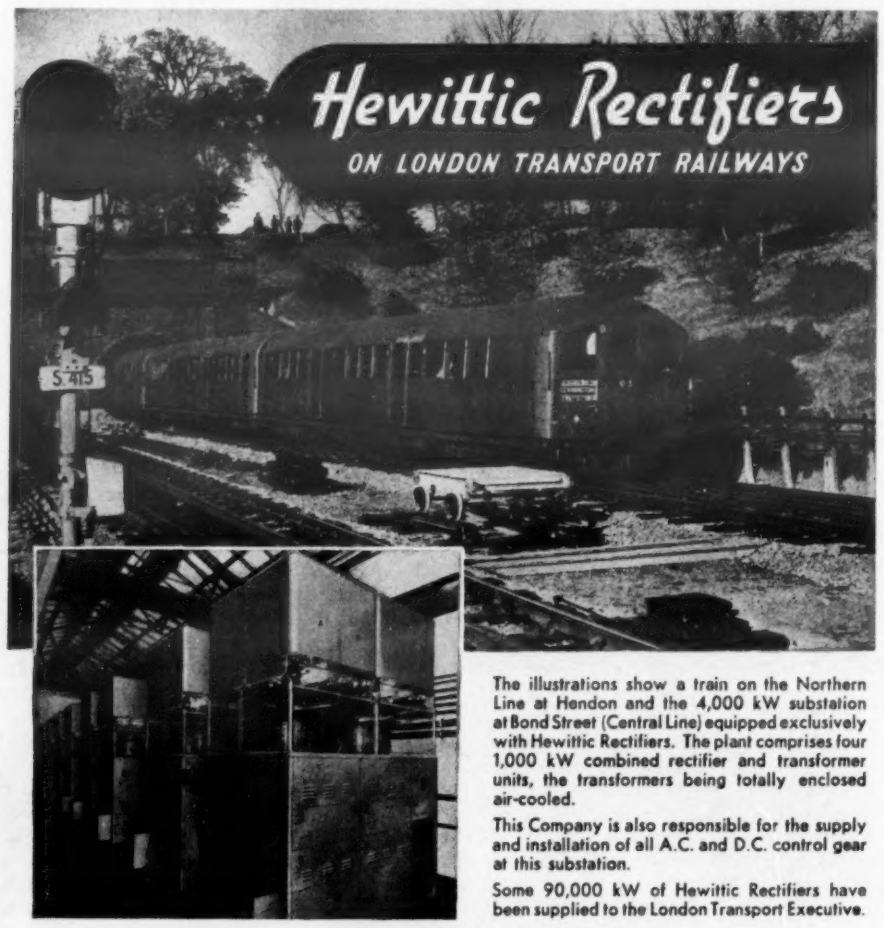

The illustrations show a train on the Northern Line at Hendon and the 4,000 kW substation at Bond Street (Central Line) equipped exclusively with Hewittic Rectifiers. The plant comprises four 1,000 kW combined rectifier and transformer units, the transformers being totally enclosed air-cooled.

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The Editor is prepared to consider contributions offered for publication in MODERN TRANSPORT, but intending contributors should first study the length and style of articles appearing in the paper and satisfy themselves that the topic with which they propose to deal is relevant to editorial requirements. In controversial subjects relating to all aspects of transport and traffic this newspaper offers a platform for independent comment and debate, its object being to encourage the provision of all forms of transport in the best interests of the community.

French Railways Face the Future

AT a time when gloomy prognostications as to the future of railways are to be heard quite often and when transatlantic messages record uncertainties as to the future of United States railroads, the railway undertakings in Europe are defying the prophets and indulging in extensive, and expensive, programmes to re-equip their systems. It is true that damage suffered during the 1939-45 war has given rise to much of this work, but this does not in any way diminish the credit which must be accorded the administrations for the zeal with which the work has been carried out and the readiness to incorporate modern practice therein. Nowhere has this been more apparent than in France, and point was recently given thereto by a paper which M. Pierre Weil, chief public relations and press officer of the Société Nationale des Chemins de Fer Français, read to a joint meeting in London of the Société des Ingénieurs Civils de France and the Institute of Transport. He recalled that when France was liberated in 1944 the S.N.C.F. had lost 82 per cent of its motive power equipment, 80 per cent of its coaches and 64 per cent of its wagons. Furthermore, some 2,600 bridges had been destroyed together with 70 tunnels, 77 roundhouses, most of the marshalling yards and a large number of stations. The human element, too, is important and during the war 4,000 French railwaymen were killed, 1,200 were injured and 20,000 displaced.

Change in Motive Power

A BASIC decision embodied in the reconstruction programme was that steam traction should be completely replaced by electric or diesel power. Such a programme must take time, but by the end of 1961, when the S.N.C.F. should have completed the third stage of its plan, nearly 8,000 km. will have been electrified, representing a fifth of its entire system and, more significantly, the lines carrying approximately 70 per cent of all the traffic. Even at the end of last year, when they amounted to about one-seventh of the total mileage, the electrified lines moved 42 per cent of all the traffic. The pursuit of greater flexibility of operation with reduced power and maintenance costs and increased speeds and tonnages has been relentless and there are significant results to prove it. The 1,500-volt d.c. electrification of the old P.L.M. main line from Paris to Dijon and Lyon has been accompanied by timetables embodying trains averaging 128 km.p.h. (80 m.p.h.) for the 512 km. (320 miles) between Paris and Lyon and making commonplace the movement by the Class 7000 CC locomotives of trains of 850 metric tons at speeds of 87 m.p.h. At present some 40,000 km. a day are covered by French trains at more than 100 km.p.h. On the score of economical utilisation M. Weil noted that one locomotive of this class, 7147, covered 438,324 km. between May 1 and December 6, 1955, giving it a daily average of some 2,000 km. (1,250 miles). This work has not, however, represented the complete scope of French railway electrification for there has also been the adoption of the 50-cycle 25,000-volt a.c. industrial current for traction. Started with the experimental section in Savoie in 1950 between Aix-les-Bains and La Roche-sur-Foron, the important main line between Lille and Basle had been equipped by the end of 1957 as well as the chord line from Valenciennes to Lens with its heavy coal traffic.

Valuable Experience

IN its search for the best means of using electric traction by this system the French National Railways placed four types of locomotive in service in 1954. The results led it to the conclusion that the BB type embodying mercury vapour ignitron rectifiers was the best for its purpose since, while weighing only 84 tons, it could handle loads of 2,400 tons on gradients of 1 in 100 without assistance. A consequential decision was taken to standardise on this type and a lighter 60-ton version for all lines at present scheduled for single-phase conversion. Reverting to the search for enhanced utilisation with its attendant economies, the electrification of the lines north from Paris to Lille will require the provision of 101 locomotives to replace 346 steam units and five diesel railcar sets. This does not, of course, infer, so far as the latter are concerned, that there is any intention of abandoning diesel traction. On the contrary, there have in the past ten years been increases from 108 to 373 in the number of diesel locomotives of over 600 h.p. in service and from 267 to 689 in the number of smaller diesels, while the railcar fleet rose from 615 to 978. The production in France of lightweight 1,400 h.p. units has, moreover, led the S.N.C.F. to contemplate use on a large scale of medium-powered diesel-electric locomotives, coupled as multiple units where circumstances require. In the railcar field the provision of the successful Trans-Europ-Express sets should be followed this summer by ten 88-seat Vistadome railcars for service on the Riviera and in the scenic Massif Central. If it is asked where all this leads, one answer provided in the paper was that the S.N.C.F. locomotive coal consumption of 8,920,000 tons in 1938 had fallen to 4,250,000 tons for the much larger traffic of 1957, while even if the current and fuel oil were translated into terms of coal, comparison of total power consumption in those two years showed a saving of some 2,430,000 tons of coal. This represents a major factor in the cessation of French dependence upon imported coal.

More Efficient Control

TRACTION has not represented the only field in which French National Railways has made substantial progress since the war, as has indeed been made apparent in MODERN TRANSPORT on a number of occasions. Passenger and freight rolling stock has received marked attention and the increase in train speeds has been achieved in conjunction with the widespread introduction of modern signalling equipment. The automatic block system had been introduced on some 4,760 km. of line by January 1, 1957, and there are now some 50 signalboxes with push-button console operation and getting on for 900 level crossings with automatic safety devices involving flashing warning lights and lifting half gates. Emphasis has also been placed upon the evolution of remote control both of train movement and, as a long-term project, of trains themselves. A great deal has been achieved and it may be recalled that a practical test of actual train control was demonstrated with an express almost three years ago. It is, however, admitted that in this whole field there is still a good deal to be done. Where these new methods are introduced and where, as will be the case between Vallorbe and Mouchard and later right through from Vallorbe to Dole, one signalbox will control all the points and signals, a first essential is possession of the full confidence of the train crew. If this is obtained, then the driver can, as M. Weil put it, be "interlocked" with the signals in the same way as a signalman. To achieve this involves linking dispatcher and driver by telephone and an ingenious yet simple system has been evolved whereby conversations are possible between the two while the train is running. "Our engine drivers will, thus, no longer feel themselves alone aboard their locomotives." There can be little doubt that it has been the feeling of close interdependency throughout the S.N.C.F. that enables it today to carry 49 per cent more passengers and 102 per cent more freight than in 1938 with staff totalling 365,000 against 514,000, a lower consumption of energy and less rolling stock.

Forthcoming Events

March 22.—Permanent Way Institution (Manchester and Liverpool). Paper by Mr. J. C. Loach, "Effects on Permanent Way to be Expected from General Introduction of Diesels and Electrification." At College of Technology, Sackville Street, Manchester. 2.30 p.m.
Branch Line Society. Brake Van Trip on the Rochdale—Shawclough Branch. Depart Rochdale Goods 9 a.m.
Light Railway Transport League. Films by Mr. W. J. Wyse, "Around Europe by Tramcar." At Exchange and Engineering Centre, New Street, Birmingham. 3 p.m.

March 24.—Stephenson Locomotive Society (Midland). Paper by Viscount Garnock, "Some Reminiscences of Canadian and American Railroads, Particularly in their Steam Days." At Exchange and Engineering Centre, Stephenson Place, Birmingham. 7.15 p.m.

March 25.—Institute of Transport (North Western). Annual general meeting. At Town Hall Annexe, Manchester. 6.15 p.m.
Institution of Naval Architects. Spring meeting. At Weir Lecture Hall, 10 Upper Belgrave Street, S.W.1. 10.15 a.m.
Institution of Naval Architects. Annual dinner. At Grosvenor House, Park Lane, W.1. 7 p.m.
Institute of Transport (Leeds G. and S.). Paper by Mr. W. Clegg, "British Railways—the Way Ahead." At offices of Leeds City Transport, 1 Swinegate, Leeds, 1. 7 p.m.
Railway Correspondence and Travel Society (West Midland). Paper by Mr. R. Bugler, "The Development of 25 kV." At 64 Holyhead Road, Coventry. 7.30 p.m.

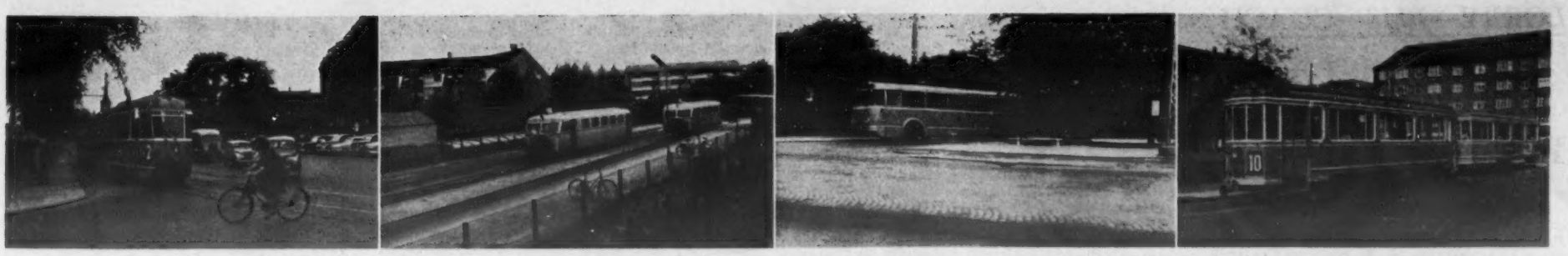
March 25-29.—Electrical Engineering Exhibition. At Earls Court.

March 26.—Institute of Transport (Leicester). Annual general meeting and paper by Mr. J. H. King, "Retail Distribution." At City Transport Offices, Leicester. 7.30 p.m.
Institution of Naval Architects. Spring meeting. At Weir Lecture Hall, 10 Upper Belgrave Street, S.W.1. 10.15 a.m. and 2.30 p.m.

March 27.—Institute of Transport (Bournemouth—Poole). Paper by Mr. F. E. Bourdillon, "Heavy Goods Haulage and Indivisible Loads." At Town Hall, Bournemouth. 6 p.m.
Institution of Naval Architects. Spring meeting. At Weir Lecture Hall, 10 Upper Belgrave Street, S.W.1. 10.15 a.m.

March 27-28.—Institution of Electrical Engineers (Radio and Telecommunication). Convention on Radio Aids to Aeronautical and Marine Navigation. At Savoy Place, W.C.2.

March 28.—Institute of Transport (Northern). Annual dinner and visit of president. At Royal Station Hotel, Newcastle upon Tyne. 7 p.m.
National Conference of Road Transport Clearing Houses. Annual meeting and luncheon. At May Fair Hotel, W.1.
Institute of Transport (South Eastern). Annual dinner. At County Hotel, Canterbury. 7.15 p.m.
Institute of Transport (Western). Paper by Mr. W. MacGillivray, "Nuclear Power in Merchant Ships." At Docks Office, Queen Square, Bristol. 1.15 p.m.
Permanent Way Institution (Leeds and Bradford). Paper by Mr. P. B. Davis, "Pre-Electrification Work in Stratford District." At B.R. Social and Recreation Club, Ellis Court, off Aire Street, Leeds. 7 p.m.
Institution of Mechanical Engineers (Internal Combustion Engine Group). Discussion, "The Ultimate Engine: Stationary, Rail Traction and Marine." At 1 Birdcage Walk, S.W.1. 6 p.m.



One of the latest trams of the Copenhagen municipal undertaking at the Bourse on the Sundby—Brönshöj service; diesel railbuses on the independent light railway from Jaegersborg to Nærum; NASA trolleybus at Sorgenfri on through service to Nörreport in central Copenhagen; and, right, an older Copenhagen Tramways tram and trailer set at Toftegaards Plads on the service to Emdrupvej

CO-ORDINATION OF PUBLIC TRANSPORT IN GREATER COPENHAGEN

Interesting Financial Provisions Outlined

By EJNAR NIELSEN, General Manager, Copenhagen Municipal Tramways

PUBLIC transport is in many big cities experiencing a serious crisis, which may have far-reaching consequences to the structure and economy of urban communities. The very unfavourable working conditions which motorisation of private transport has brought about for public transport have been discussed again and again at congresses, in leaflets and in traffic journals, and an energetic effort has been exercised to make the public understand that the streets must be reserved to the moving traffic and that the constantly more concentrated rush hours ought to be counteracted by the introduction of staggered hours. It has also been stressed how important it is that the public is offered a first-class service, inter alia by the acquisition of up-to-date rolling stock. There is one thing, however, for which we have apparently not had a sufficiently keen eye, and that is the fact that *a co-ordination of public transport in the entire town community* is required.

Co-ordination Needed

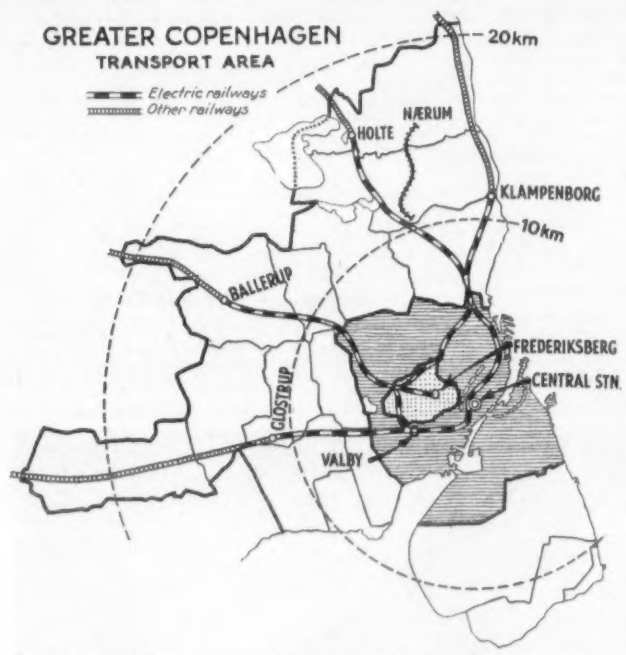
A modern big city is today made up of the mother city proper and a surrounding continuously built-up area of a more or less urban character, which together with the mother city constitutes a homogeneous conurbation. Commonly the operation of public transport within the urban area is divided between various transport enterprises with different working conditions, incongruous service and uneven distribution of burdens on the citizens, and these traffic enclaves are in many cases pressed into and encircled by municipal boundaries in a way which is quite unreasonable.

The result of this irregular and irrational distribution of advantages and burdens is often that the motor car is chosen for transport in many cases where it would be natural and economical to make use of public transport. So, if we are desirous of system and plan in the traffic of a big city, it is an indispensable condition that transport service is co-ordinated for the entire conurbation and that it is organised on a rational basis without regard to any municipal boundaries. In Copenhagen a proposal has been prepared for a co-ordination of transport in Greater Copenhagen. If this proposal, which will be introduced into the Folketing (the Danish parliament) shortly, is carried through, the framework for rationalisation of transport in Greater Copenhagen has been established. At the same time it will be possible to make an even distribution of the burdens and advantages of a transport arrangement for Greater Copenhagen. As corresponding problems will undoubtedly arise in other cities of a similar size, it may perhaps be of interest to see along what lines this project has been prepared.

Development of Area

The traffic area of Greater Copenhagen comprises the two municipalities in the centre of this area, Copenhagen and Frederiksberg, and 15 suburban municipalities. The area had in 1930 a total population of 850,000, of which about 140,000 lived in the suburban municipalities. About 85 per cent of the inhabitants of the area were thus living in the two municipalities in the centre, and by far the greater part of the industry of Greater Copenhagen was concentrated there. Already at that time the central area was practically fully developed, and the development of population through the subsequent 25 years has therefore mainly manifested itself as a very heavy increase in the population of the suburban municipalities. While the number of inhabitants of the two central municipalities during this period only rose by 22 per cent, the rise in the suburban municipalities was 180 per cent, so that only about 70 per cent of the population of the total area lived in the central municipalities in 1955.

Besides extensive housebuilding in the suburban districts, a great number of industrial plants has been erected within the whole area in the course of the period, and moreover there has been a great accentuation of the development of the business centre of the capital.



Greater Copenhagen, showing municipal boundaries and passenger railway system

Present Transport System

Mass passenger transport within the area is today undertaken by:

	Number of passengers in millions	*per cent*
State Railways (urban railways, etc.)	about 68	22·7
The Copenhagen Municipal Tramways which operates trams and buses in the municipalities of Copenhagen and Frederiksberg	,, 180	60·0
and by the following undertakings, all of which operate buses in the suburban municipalities:		
Limited companies (shares mainly owned by the municipalities)	,, 17	5·6
The State Buses	,, 5	1·7
Various private bus undertakings ..	,, 30	10·0
Total about	300	100·0

As it appears from the map, the electrified urban lines of the Danish State Railways comprise routes running from the environs of Copenhagen into the city centre where the suburban routes meet. The suburban buses operate to a great extent as feeder lines for the urban railways, which thus carry a very essential part of the passenger transport between the city centre and the outer suburbs of Copenhagen besides a good deal of local traffic along the routes.

The aforementioned development has in the course of the last 25 years brought about a situation in which the whole area is a unity today as regards economy, population and trade. However, the transport service of the area does not function as a unity, but is often determined among other things, by municipal boundaries. Route concessions are granted by different authorities, and the decision of questions regarding fares, routes, and timetables are also made by different authorities. Moreover investments in public transport are not made according to a concerted plan for the whole area, but the various proprietors make independent investments without having regard to the entirety.

Suggestion for New Organisation

On December 4, 1950, the Government appointed a committee which was given the task—in view of the disadvantages attaching to the present transport organisation—of preparing suggestions for a reorganisation of public transport in Greater Copenhagen. On June 28, 1955, the committee made a report suggesting a co-ordination of public passenger transport within the whole area under one authority. It is expected that the proposal made by the committee will be introduced by the Government as a Bill in the course of the spring of 1958.

The committee proposes in its report a fusion of the economy of public passenger transport within the area and the establishment of a transport board which would be in charge of the granting of concessions, planning, investment, and the operation of public transport with the exception of the bus routes owned by private companies or individuals, which will be allowed to continue to operate on conditions which will be fixed by the board.

It is thought that the transport board membership should be made up of a *political assembly* which will grant the means required for investment in transport. This body should be appointed by Parliament and by the municipal councils within the area. A *board of executives* should be given the task of planning and the executive power with responsibility to the political assembly.

Inquiry office for Copenhagen Tramways facilities in the Raadhusplads; right, Guy double-decker of Danish State Railways at the Valby interchange on the service to Vallensbaek Strand and Köge

Traffic Planning

The executive board must work out concerted plans, for periods of five years each, covering the development of all branches of public transport within the area. The plans, which must be based on a roughly outlined long-term programme for the development of traffic, must comprise equipment to be constructed within the next five-year period and indicate the extent of the investment required. The proposal envisages a comprehensive renewal of existing old rolling stock, an extension of the network of urban railways and, possibly, the construction of underground railways. It will also be necessary to co-ordinate the various fare systems within the area.

The traffic plan and the construction budget must be submitted to the political assembly for approval of the grants. After having been approved by the political assembly the grants must be finally voted by Parliament, the municipal councils of Copenhagen and Frederiksberg, and —on behalf of the other municipalities—by the county council, which is made up of political representatives of the suburban municipalities.

As the grants are given for a period of five years, price increases may upset the basis of the investment calculations. It has therefore been suggested in the report that an automatic price regulation of the balances of the grants is made in the course of the period. The loans necessary for the fulfilment of the investment programme should normally be supplied by the Treasury.

Financial Arrangements

The main principle of the business economy according to the suggestion of the committee is that all public transport units—existing as well as forthcoming new equipment—are to be placed at the disposal of the transport board free of charge so that payment of interest and depreciation on such plants is taken over by the public authorities, which, on the other hand, do not assume other expenditures. This arrangement, which is one of the most interesting new ideas of the proposal, means firstly that a limit is fixed to the size of public contributions and secondly that the public authorities through the political assembly will be able to decide for themselves how large the amounts will be, as interest and depreciation on transport plant will exclusively depend on the size of the investment grants.

Actual working expenses *must* be paid out of working receipts, which means that apart from interest and depreciation the accounts must show an equilibrium. If the accounts should show profits, such profits may be applied in partial cover of interest and depreciation, which may perhaps become of current interest when the transport system has been developed and modernised.

The financial situation will incidentally be eased at the beginning because the part of the pensions which concerns service before the establishment of the board of transport are to be paid by the original owners. The transport board will thus only have to pay pensions out of transport receipts to the full extent after the passing of a number of years.

Interest on Capital

It has been suggested that the cost of providing for interest and depreciation should be divided between the Treasury and the municipalities in the following way. The Treasury shall pay in advance a fixed percentage—according to the proposal 75 per cent—and the balance shall be paid by the various municipalities in proportion to the number of their inhabitants. To the extent to which working profits shall contribute to the covering of interest and depreciation, a proportionate reduction shall be made of the portions to be paid by the Treasury and the municipalities. The transport equipment to be taken over by the board of transport is owned partly by public authorities and partly by companies in which public authorities hold the majority of the shares.

Committee Unanimous

In principle such plant is to be taken over at its initial cost after deduction of amounts written off for depreciation. An adjustment of the value of rolling stock and plant is to be made, however, with due regard to any dissimilarities in the depreciation provisions of the various undertakings which are taken over, so that the surrender value is computed on a uniform basis. It is impossible at the present time to say what the fate of the proposal will be at the reading in the Folketing, but the report which forms the basis of the proposal has been unanimously adopted by all members of the committee, which included members from all major political parties.

Buses of Hvidovre Rutebiler on Toftegaards Plads—Hvidovrevej service; Dodge at Gladsakse of Forenede Rutebiler; and, right, Leyland Worldmaster one-man bus of Copenhagen Tramways at Gladsakse on service to Raadhusplads—one-man services are extensively used in the city centre

LORRY—BUS—COACH

Normal User: A Plea for Sanity

RECENT decisions of the Transport Tribunal surrounding normal user had caused some anxiety to all holders of A-licences, but more particularly to those with special A-licences which will require to be renewed within the next two years or so, said Mr. R. G. Crowther, chairman of the R.H.A., in Nottingham on Wednesday. When these licences came to be renewed the licensing authorities should adopt a uniform policy of granting renewals on the basis of work undertaken by the specified vehicles within, say, not more than 12 months prior to the date of renewal, he stressed.

In Sheffield the day before, the R.H.A. chairman had praised the co-operation between road hauliers and steel manufacturers. In other areas, he said, steel manufacturers, while supporting free enterprise in their own industry, were "not always ready to give a fair share of their transport to private enterprise." Also in Sheffield there was close association between private enterprise hauliers and British Road Services in their joint service to the steel industry. This was a commendable arrangement which alone proved the absurdity of suggesting that it was necessary to nationalise independent road haulage in order to ensure that it worked for efficiency along with the nationalised undertaking.

Tractor Spares By Air

FERRYING tractor spares by air via the Silver City Airways route between Lydd and Le Touquet saves Massey-Harris Ferguson a whole week in time and, taking packaging into consideration, also about £4 per ton in transport costs, it is stated. The consignments are sent by road from Manchester to Lydd and thence by Bristol Freighter. Warehouse to warehouse transit time is 72 hours.

Coach-Air Journey Too Lengthy

BECAUSE, he said, the road journey duration was out of all proportion to a proposed air route the Scottish area Licensing Authority on March 13 refused an application by Scottish Airlines (Prestwick), Limited, to operate a coach service between Edinburgh and Prestwick to feed its air services to the Isle of Man. Opposition was tabled by Western S.M.T. Co., Limited. Evidence was produced that an air service was in process of inauguration from Turnhouse, Edinburgh, direct to the Isle of Man. This would involve approximately one hour of direct flying time. By comparison the proposed bus service would involve three hours' road travelling to Prestwick and then forty minutes of air travel. (The Edinburgh—Isle of Man service referred to will be operated by the Northern division of Silver City Airways on Friday and Sunday during the summer, commencing June 1.)

C-Licensees, Too, Next Time?

NO future nationalisation of road haulage could be effective without restrictions on C-licences, but in view of the position which such a policy must create, the Socialist Party was carefully avoiding any direct reference to its plans in this regard, declared the R.H.A. chairman, Mr. R. G. Crowther, speaking last week in Hull. On the previous nationalisation of road haulage C-licensees were excluded on the strength of the Co-operative Party, but trade and industry could not rely on similar success with another Socalist Government. Socialist politicians had made it clear that the form of transport they envisaged operated in a straitjacket could not be brought about without widespread restriction on operation and control of development.

Why Not Drinks in Bus Station?

FOR the third year running, Southdown Motor Services, Limited, has been refused a full on-licence for its Haywards Heath bus station. At the annual licensing meeting it was stated that excluding the local route 1,770,000 passengers per annum used the bus station. The company had operated a buffet since 1956, and, said Mr. S. Rees, Q.C., it was its policy to provide for all the requirements of the passengers under one roof. There had been movement off the railways on to the roads as far as transport was concerned and bus stations had had to be created. He asked the court to consider whether, under such circumstances, there should not be at the bus station a bar similar to that on the railway station. A petition was produced in support of the application, signed by 556 persons. On behalf of the Brighton and County Victuallers' Association, and several local hotels, Mr. H. B. Grant opposed the application and said nothing had happened with regard to an increase in sales and demand since last year to justify the application being granted. If it was right to dismiss the application last year it would be right to follow the same course this year.

Off-Duty Conductress Still in Charge?

IN a recent case at Bootle Magistrates' Court, a Liverpool Corporation bus conductress, off duty but wearing uniform, and acting in accordance with a departmental instruction that off-duty conductors should assist regular conductors, rang the bell to start a bus, causing a women to be dragged by the bus. The court found her guilty of failing to ensure the safety of her passengers and fined her £1 10s. with 16s. costs. She was found not guilty of ringing the bell as a passenger.

Tours Brochure Before Licence

WHEN R. Dickson, Jnr., Limited, Dundee, applied to include Renfrew as an alternative to Newcastle in its Scandinavian capitals air-coach tour at a sitting of the Scottish area Traffic Commissioners in Dundee, Mr. R. C. B. Currie, for objectors, said the applicant was to some extent putting the cart before the horse, because as far back as August or September last year Dickson had prepared a brochure listing dates when tours were to depart via Renfrew. It now asked for the licence to be amended on the strength that it had booked people via Renfrew. Mr. Alex Robertson, chairman of the commissioners, said that could cut no ice with them. Mr. Walter Fletcher, for the applicant, said the brochure made it plain that the tours were subject to the approval of the traffic commissioners. They had to give customers some indication and it would be ridiculous to start preparing a brochure as late as March. The application was granted.

Touring coaches at home and abroad: a Maarse and Kroon 40-seat coach seen on a German and Scandinavian tour has Verheul bodywork on a Leyland Worldmaster chassis; right, one of six 34-seat coaches being placed in service by Western Welsh Omnibus Co., Limited. In addition, it is having 12 39-seaters; all have Harrington bodies

Edinburgh Tries Demonstrator Buses

IN the course of trying out demonstration vehicles recently in anticipation of new orders, Edinburgh Transport Department has had in operation a Bedford Duple service bus with Leyland Tiger Cub engine, an A.E.C. single-decker and a Bridgemaster Duple-bodied 72-seater double-decker. It is estimated that 50 single-deckers will be needed to replace existing vehicles.

Bus and Coach Developments

Cross Gates Motors (R. T. Knill) proposes a Tuesday, Thursday and Saturday service from Llandrindod Wells to Dolau via Cross Gates and Penybont.

W. L. Silcox and Son, Pembroke Dock, seeks the licences held by D. J. Morrison, Limited, Tenby.

United Counties Omnibus Co., Limited, applies to modify the routes of its services in Bedford when the new bus station in Gwyn Street is constructed.

Mid-Wales Motorways, Limited, seeks the Shrewsbury—Montgomery, and Welshpool via Westbury and Marton service of Worthen and District Motor Services, Limited.

TENDERS INVITED

THE following items are extracted from the Board of Trade Special Register Service of Information. Inquiries should be addressed, quoting reference number where given, to the Export Services Branch, Board of Trade, Lacon House, Theobalds Road, London, W.C.1.

March 28.—Union of South Africa.—South African Railways for one On-Track BALLAST TAMPING MACHINE, 80 h.p. (min.) diesel-hydraulic or diesel-pneumatic, 10 tons (min.) operating weight, 3 ft. 6 in. gauge, four wheels, resilient springs. Tenders, endorsed "Tender No. F.7214: Ballast Tamping Machine," to the Chairman of the Tender Board, P.O. Box 7784, Johannesburg. (ESB/6541/58.)

March 28.—Union of South Africa.—Cape Provincial Administration for about 100 heavy-duty GIANT TYRES. Photo copies of tender documents from Export Services Branch, B.o.T., price 2s. (ESB/5680/58.)

March 29.—Iraq.—Iraqi State Railways for seven metre-gauge and three standard-gauge BOGIE FLAT WAGONS and SPARES. Tenders to the Director-General, Iraqi State Railways, Baghdad. (ESB/832/58.)

April 3.—Australia.—South Australian Railways for 12 DIESEL ENGINES to replace existing petrol engines in Model 75 railcars. Tenders to the Railways Commissioner, Adelaide. (ESB/5030/58.)

April 3.—Union of South Africa.—South African Railways for 10 heavy-duty THREE-AXLE ROAD TRACTORS, less tyres, tubes and batteries, and separately for TYRES, TUBES, BATTERIES and 10 PARTS LISTS, 10 DRIVERS' INSTRUCTION BOOKS and 10 WORKSHOP MANUALS. Tenders, endorsed "Tender No. F.7098: Three-Axled Heavy Haulers," to the Chairman of the Tender Board, P.O. Box 7784, Johannesburg. (ESB/6184/58.)

April 5.—Formosa.—International Co-operation Administration for 10 1,300-1,400 h.p. DIESEL-ELECTRIC LOCOMOTIVES, SPARE PARTS and MAINTENANCE TOOLS. Tenders to the Central Trust of China, Purchasing Department, 68 Yen Ping Nan Road, Taipei, Taiwan. (ESB/6095/58/ICA.)

April 8.—Ceylon.—International Co-operation Administration for two 5-ton capacity diesel-engined pneumatic-tyred FORK-LIFT TRUCKS. Tenders to the Ministry of Lands and Land Development, P.O. Box 500, Secretariat Building, Colombo, 1. (ESB/3773/58/ICA.)

April 11—Turkey.—A call for tenders for the construction of TACAN STATIONS at 11 airfields in Turkey. The work includes the construction of buildings, access roads, parking areas, steel towers, 30-kVA power plant, electric wiring, fuel tanks and pumps, fuel distribution systems. The work is to be completed by January, 1960. Firms, or groups of firms, wishing to be invited to tender should apply, quoting reference 3150-74/58, to the following address, copying their letter to the British Embassy in Ankara: T.C.M.M. Vekaleti, Hava NATO Elektronik Enfrastruktur Burosu, Paris Caddesi No. 44, Kavaklidere, Ankara. (ESB/6996/58.)

★

FINANCIAL RESULTS

NOTES on the trading results, dividends and financial provisions of companies associated with the transport industry are contained in this feature, together with details of share issues, acquisitions and company formations or reorganisations.

Trent Motor Traction

Net profit of the Trent Motor Traction Co., Limited, for 1957 was £108,117 (£115,966) after £148,113 (£111,019) depreciation and £100,186 (£77,526) tax. General reserve takes £10,000 (£25,000) leaving forward £88,367 (£90,250). Ordinary dividend for the year is 10 per cent tax free (17 per cent less tax).

Ford Motor

A final dividend of 6 per cent is being paid by the Ford Motor Co., Limited, for 1957, making a total dividend of 9 per cent for the year. Group trading profit was £18,042,573 (£8,766,045), taxation took £8,521,040 (£4,639,000), leaving net profit £10,880,809 (£5,614,866). Total sales amounted to £165·9 million (£145·7 million).

Dunlop and John Bull Rubber

The directors of John Bull Rubber Co., Limited, announce that acceptances of the offer made by the Dunlop Rubber Co., Limited, to acquire the whole of the £555,558 issued ordinary stock of John Bull have been received from holders of over 90 per cent of that stock. The offer is therefore now unconditional.

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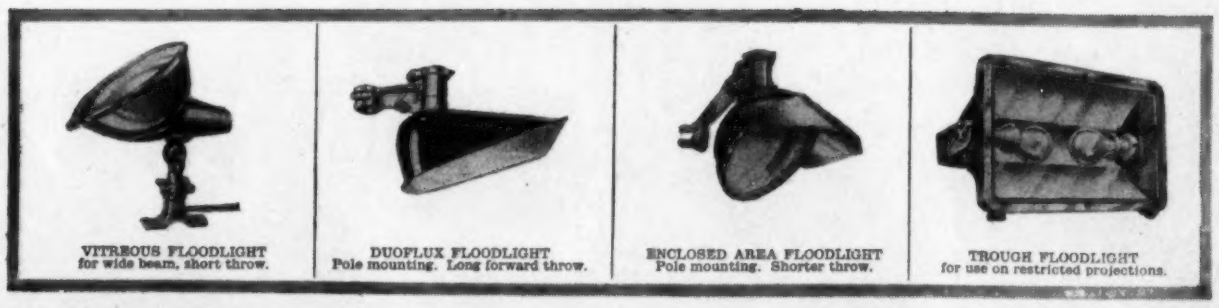

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COMMERCIAL VEHICLES AT THE GENEVA SHOW

Automatic Transmission and Air Suspension

MARKETS in Switzerland for the heavier classes of commercial vehicle might be limited but this has not inhibited the Swiss manufacturers' displays at the 1958 Geneva Motor Show, nor those of German manufacturers, who are the principal foreign suppliers to Swiss operators and are present at the Salon and in the demonstration park in strength. An idea of the low replacement rate and the long life extracted by average Swiss operators of goods and passenger vehicles is given by figures published by l'Association Suisse des Propriétaires d'Autocamions. In 1957, of a total of 2,730 buses and coaches in service in the country, no fewer than 824 were of 1945 vintage or earlier. For heavy lorries, road tractors and specialist vehicles, the percentage of pre-1946 vehicles still in use was of about the same order, while it was not substantially lower for vehicles between 1 and 5 tons capacity.

The replacement rate would almost certainly be lower still were it not for the Swiss practice of subsidising the purchase of all goods vehicles of 5 tons capacity upwards to meet a standing liability to requisition of such vehicles for military duty. The subsidy amounts to S.Fr.5,800 (about £485) on a normal 5-ton lorry costing roundly Fr.50,000, Fr. 6,800 on normal lorries with a capacity greater than 5 tons and Fr.16,800 (£1,400) on any four-wheel-drive vehicle of 5 tons or more capacity. On the other hand, a Swiss legal requirement that vehicle manufacturers must maintain spares stocks for all vehicles remaining in or liable to military service enables operators to keep old vehicles in service much longer than would otherwise be economically possible.

Coaches at Geneva: a 22-seat underfloor diesel-engined Swisscar, product of one of the Swiss coachwork groups; Schindler 34-seat Alpine coach with Kämper V-8 diesel engine and independent air suspension all round

Low Sales Potential

Despite this not very encouraging sales potential, which might total about 650 lorries and tractors of 5 tons capacity upwards and 150 public service vehicles annually, the major part of the greatly enlarged commercial vehicle hall, which now disposes of some 108,000 sq. ft. of floor space, is occupied by buses, coaches and heavy-type vehicles and trailer. Swiss heavy-vehicle manufacturers are all represented this year, as are all the principal coachbuilders. The main novelties follow the trends already evident at the last Frankfurt and Paris exhibitions, in which earlier experimental automatic and semi-automatic transmissions are now appearing in production urban buses and air suspension systems are offered as optional equipment in a number of passenger chassis and trailers.

Diwabus Transmission

Semi-automatic transmission of the Z.F. type has already been fitted in bus chassis by Saurer for some time and now both Saurer and Berna have adopted the German Voigt Diwabus fully automatic unit for urban buses, which is to be manufactured under licence in Switzerland by Berna. Already used widely in German buses, the Diwabus transmission comprises a torque-sensitive planetary differential gear arranged in parallel with a hydrodynamic torque converter-coupling, which drives through an automatically controlled two-speed gear train. Advantages claimed for the differential mechanical-hydraulic paths are acceleration and fuel economy equal to those obtainable with stepped mechanical transmission.

The important Swiss manufacturer, F.B.W., has a licence agreement with Self-Changing Gears, Limited, of Coventry, and these two concerns occupy adjacent stands at the show. The S.C.G. four-speed planetary gearbox and hydraulic coupling have been widely used by F.B.W. in both goods and passenger chassis and now the company is offering the fully automatic version for urban buses, and also the S.C.G. semi-automatic (two-pedal) eight-speed transmission, with its simple finger-tip control, for heavy-duty goods chassis.

F.B.W. is a strong exponent of the underfloor layout for goods chassis and this configuration has found favour with a number of Swiss operators. Typical of this manufacturers' products of the type is a 1,800-gal. light-alloy beer tanker for Cardinal Brasserie on L50U chassis, which is powered by the F.B.W. 155-165 b.h.p. horizontal diesel driving through a licence-built S.C.G. semi-automatic four-speed gearbox and separate electro-pneumatically operated two-speed planetary range changer. This concern has a representative bus, coach and articulated tractor also on the stand and F.B.W. chassis form the basis of several coachbuilders' exhibits.

Well over half of the heavier classes of goods and passenger vehicles operated in Switzerland have been produced by Saurer and Berna, which have a joint design and manufacturing policy, and this leading position is reflected in the number and variety of the products of these two manufacturers on their own and coachbuilders' stands. A Saurer 5DUP underfloor 200-b.h.p. diesel-engined bus chassis, introduced last year with Z.F. transmission but fitted with the Diwabus unit in this application, forms the basis of a bus-trailer combination designed to handle more effectively dense urban traffic in Geneva. One of 17 on the present order, the complete equipage carries 158 passengers, 88 (43 seated) in the bus and 70 (27 seated) in the trailer.

Coachbuilding Groups

The Saurer bus hauls a Moser four-wheeled trailer, which is interesting for having Ackermann steering and all-independent suspension by swing axles and transverse semi-elliptic springs, and the bodies are the work of a coachbuilding group comprised of Lauber (Nyon), Hess (Bellach) and Ramseier (Berne). Each portion is crewed by only one man, the driver (who certainly needs the relief afforded by the automatic Diwabus transmission) having cab equipment that would not appear out of place in the cockpit of a transport aircraft, as well as a ticket-issuing machine, to control the vehicle, three doors in the bus and two in the trailer on receipt of signals from the conductor. Incidentally, this outfit is finished in the new C.G.T.E. (Geneva Tramways) cream and bright-red livery, which has been chosen to replace the present drab green and cream livery to make the vehicles more visible and improve road safety.

Another example of Swiss coachbuilding collaboration or grouping is evident in a new car-alpine—the Swisscar—a 22-seat touring coach produced jointly by Ramseier and Jenzer, Berne, and Tüscher Frères, Zurich. Technically, the vehicle is notable for employing integral construction and a Henschel HS90 four-cylinder 100-b.h.p. underfloor diesel engine—probably the first vehicle of this size in Europe to adopt the underfloor layout. Drive is through a Z.F. electropneumatically operated eight-speed gearbox to provide the necessary flexibility on mountain roads.

Frech-Hoch furniture van on an American Ford V-8 chassis with forward control tilting cab; C.W.A. mobile butcher's shop on a Mercedes-Benz four-wheel-drive chassis. Below, left, 1,800-gal. light-alloy demountable beer tank on F.B.W. underfloor diesel chassis with S.C.G. air-operated four-speed gearbox and two-speed range changer; right, another C.W.A. mobile shop is designed for self service and uses an American Ford petrol-engined chassis

Air Suspension

Of the other Swiss producers, Mowag introduces a 5-ton van powered by a Kew Dodge petrol engine and having a forward control cab with extremely easy access doors, a feature usually

(*Continued on page 13*)

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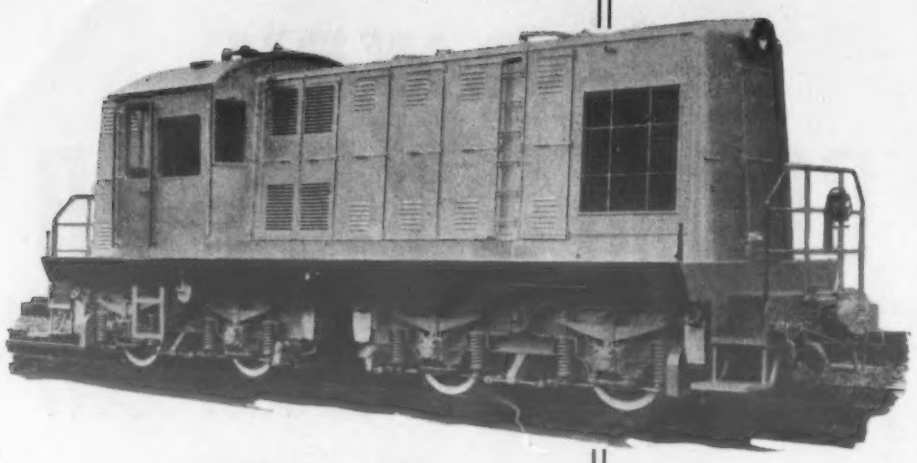

One of thirteen 400 b.h.p. diesel electric locomotives, for both shunting and main line passenger haulage, supplied by Birmingham Railway Carriage & Wagon Co. Ltd., to the requirements of the Ghana Railways and Harbours Administration under the supervision of the Crown Agents for Oversea Governments and Administrations.

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THOUGHT NEEDED BY TRANSPORT

Complex Problems to Solve

MEMBERS of the Southern section of the Institute of Transport enjoyed the section's annual dinner and dance at Lyndhurst last week. The dinner was presided over by Mr. W. H. Scutt, chairman of the section, and the principal guest was Sir Reginald Wilson, president of the Institute. In reply to the toast "The Guests," proposed with a sincere welcome from the chair, Sir Reginald referred to the essential unities of transport—they were an Institute of Transport, not of railways, buses, docks, or even canals. As members of the Institute it was their duty to remember the common threads of interest. For instance, there were the common problems of unremunerative services.

If the Chancellor dropped the fuel tax on buses to cope with unremunerative services, declared Sir Reginald, he would in fairness have to pay £40 million a year to the railways to cover their track costs. The problems of today were, however, nothing to those of tomorrow. It was no good letting everything slide and hoping that the problems would solve themselves. Someone had got to do some thinking about transport, but not wild, woolly and sentimental thinking. There was a need for an approach to the problems dictated by a professional attitude—not an expert attitude—in pursuit of the science and art of transport.

The reply to the toast was seconded by Mr. Charles Hopkins, who referred to the educational value of the Institute. That lay not merely in its examinations and diplomas but in the sharpening of professional minds against other professional minds and the realisation of the wider horizons made available for the inquiring mind. It was important that these facts should be realised by the young and not left to be understood by the middle-aged or elderly. That was why they should all encourage the younger people to take advantage of the educational aspects of the Institute. He was particularly glad to be there because he felt the out-of-town sections counted for so much in moulding the future—they were in the aggregate greater in weight than the Metropolis.

First Aid in Public Transport

THE N.R.P.T.A.A. COMPETITIONS

THE National Road Passenger Transport Ambulance Association was formed in 1932 for the purpose of encouraging employees of road passenger transport undertakings to take an interest in first-aid work and to encourage managements to sponsor this interest. The importance of having staff well trained and efficient in first aid cannot be too greatly emphasised, particularly in the transport industry. Indeed, at many garages and depots it is a legal requirement under the Factory Acts to provide trained first-aiders. The responsibility of providing training and equipment rests with the undertakings concerned, but the association promotes a continuing interest for trained personnel by arranging annual first-aid competitions between teams from affiliated undertakings for both men and women employees.

Trophies

At present there are some 34 member concerns in the Association, of which 27 are municipal and six are companies. The London Transport Executive is also a member. In 1957, 18 of these entered mens' teams and four sent women's teams to the centre. The trophies for the annual competitions are the Stirk Trophy for men given by the late Mr. J. H. Stirk, chairman of the East Midland Traffic Commissioners, and the Lewis Cup for women, presented by the hon. secretary of the Association—Mr. Horace D. Lewis. Area competitions are arranged in accordance with the number of entries received and the undertakings willing to act as host. It is usual for the undertaking holding the Stirk Trophy to act as host for the final competition in the following year. Prizes are awarded to members of the winning teams in both the area and final competitions.

Area eliminating competitions for the Northern, Midland and Southern areas will take place in May, the number of teams going forward to the final competition being governed by the number of team entries received in each area. Prizes are awarded to the winners in both area and final competitions. The final competition is held under the auspices of the St. John Ambulance Association who also present plaques to the winning teams, and the Stirk Trophy and Lewis Cup winners go forward to represent the National Road Passenger Transport Ambulance Association in the Grand Prior's Trophy competition in the following November. The 1958 area eliminating competitions will take place as follow:

Sunday, May 4, at Edinburgh.
(Northern area eliminating competition).
Sunday, May 11, at West Bromwich.
(Midland area eliminating competition).
Sunday, May 18, at Plymouth.
(Southern area eliminating competition).

The final competition will take place at London Transport's Aldenham Works, Elstree, Herts, on a date to be arranged.

Management

The president, who is also chairman of the committees, is the general manager of the undertaking holding the Stirk Trophy. At present, however, London Transport is the holder and the president is Mr. J. B. Burnell, operating manager, Central Road Services, L.T.E. The Lewis Cup is held by the Liverpool Corporation Transport team. All general managers of affiliated undertakings are vice-presidents. An elected committee meets quarterly to arrange the affairs of the Association and a competition committee meets prior to the annual competitions to make the necessary arrangements. The hon. secretary of the Association is Mr. Horace D. Lewis, Cardiff City Transport, 68 Flora Street, Cathays, Cardiff, and the hon, treasurer is Mr. D. P. C. Fletcher, chief accountant, Leicester City Transport, Abbey Park Road, Leicester.

The funds of the association are derived from a donation of £6 6s. from affiliated undertakings, plus 2s. 6d. affiliation fee and £2 team entrance fee. It is the earnest desire of the Association to obtain 100 per cent membership, to receive a larger entry for the annual competitions and so extend the sphere of its activities. It is particularly hoped to obtain the membership of all the larger undertakings in Great Britain, whether municipal or company owned.

PROFIT FOR I.o.M. RAILWAY

Unremunerative Bus Routes

SHAREHOLDERS in the Isle of Man Railway Company last week approved a dividend of 2½ per cent on the ordinary shares and 5 per cent on the preference shares, leaving a balance of £1,962 to be carried forward to the next account. The chairman, Mr. A. C. Teare, a Member of the House of Keys (the Manx Parliament), stated that the indifferent weather during a great part of last summer proved a deterrent for sightseeing travel within the island. On the whole, the season was not up to expectations, but it should be remembered that during the first eight months some eight million working days were lost through strikes in Great Britain, compared with 1½ million in the same period in 1956, while competition between resorts at home and abroad was keener today than anyone could remember.

Total receipts on the year's working amounted to £86,600. This was £144 better than in 1956, and was accounted for by an increase in goods traffic, which offset decreases in other items. The total expenditure amounted to £79,584, an increase of only £19. Wage rates were again advanced, and it was becoming increasingly difficult to meet the problem of absorbing the additional costs which automatically followed upon wage awards made in Great Britain.

The credit balance in the revenue account was £7,015 and to this was added the balance from the previous year, £2,520, and investment income (including £3,500 from Isle of Man Road Services, Limited, a subsidiary company) £5,632, which made a total available of £15,159. Debenture interest absorbed £7,197; the 5 per cent preference dividend £2,500, and the ordinary dividend £3,500.

Problem of Unremunerative Routes

After stating that the subsidiary company carried as many passengers in 1957 as in the previous year, and also maintained the same revenue level on its regular services, Mr. Teare said some abstraction of traffic was experienced in certain other services normally provided by the company, a circumstance which would not have happened if the public service vehicle licensing system had been up-to-date, and the licensing authority—as in the case of licensing authorities elsewhere—placed in a position to protect the regular operator who provided unremunerative services throughout the year. The problem of maintaining those unremunerative services, particularly in rural areas, was not peculiar to the Isle of Man alone, but was causing much concern throughout the country. The situation was aggravated by the heavy operating costs which made the losses on these services more serious than ever, and other routes less capable of subsidising them. Something must be done to reduce the losses in sparsely populated areas. Fuel tax was only one of the company's burdens, and while its removal would not completely solve the problems it would go a long way in that direction. So, too, would the removal of the many disadvantages of the Isle of Man licensing system, thus affording the subsidiary the same rights and privileges as other bus companies.

CLASSIFIED ADVERTISEMENTS

SITUATION VACANT

CROMPTON PARKINSON, LIMITED, Traction Division, Chelmsford, invite applications from Engineers with B.Sc., H.N.C. or equivalent qualifications. The position involves varied, interesting and responsible work in the expanding Diesel-Electric Traction Section. Applicants must have served an engineering apprenticeship, but previous experience in traction work is not essential; excellent prospects. Starting salary commensurate with qualifications. Apply Chief Personnel Officer, Crompton House, Aldwych, London, W.C.2.

CHAMOIS LEATHERS

GUARANTEED hardwearing Chamois Leathers. Approximately 22 in. by 16 in.: only 6s. 11d. each (minimum order six); 1 kip (30) less 5 per cent.—County Chamois Co., Limited, Rocky Lane, Aston Cross, Birmingham.

OFFICIAL NOTICE

RHODESIA UNITED TRANSPORT GROUP

ASSISTANT TO THE GENERAL MANAGER

THE Rhodesia United Transport Group operating throughout the Federation of Rhodesia and Nyasaland have a vacancy for an assistant to the General Manager of one of their principal companies operating approximately 250 passenger and freight vehicles.

Applications are invited for the position, the inclusive remuneration for which will be according to qualifications and experience, but will be in the region of £2,000 per annum. The post is pensionable. Medical aid benefits are available, leave conditions, housing and use of car.

Only persons having managerial experience will be considered.

Applicants must state fully details of their career and experience in all aspects of operation and management.

Applications to: The Secretary, United Transport Co., Limited, Mounton Chambers, Chepstow, Monmouthshire, to be received not later than Saturday, April 5, 1958.

L.T.S. MODERNISATION

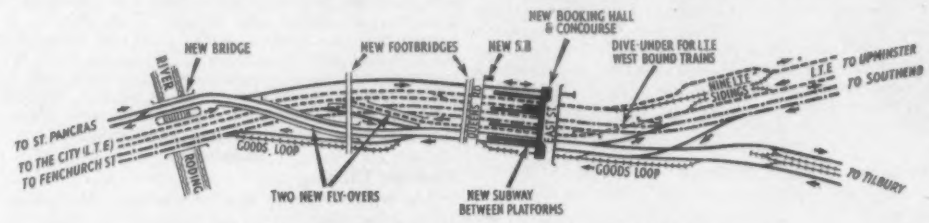
Progress at Barking and Ripple Lane

40 PER CENT OF WORK COMPLETED

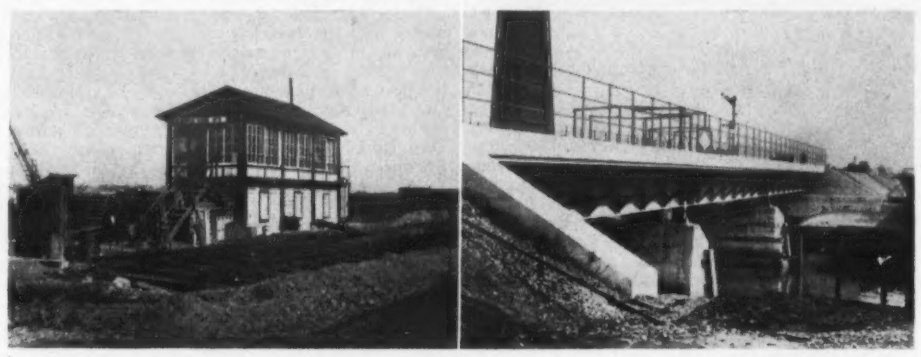
ONE of the biggest jobs of its kind ever undertaken in this country, the railway reconstruction scheme at Barking is now about 40 per cent completed. Work on the site commenced in July, 1956, and should be finished by December, 1959. The principal features of the scheme consist of two new fly-overs, a dive-under and the realignment of almost the whole of the existing trackwork. A reconstruction on this scale would be a big job by any standards, but its real magnitude can only be properly appreciated when it is realised that the whole of the work involved is being carried out with virtually no interference to the normal train services. The scheme has been described as the key to the London, Tilbury and Southend electrification, and this is true inasmuch that Barking, which is one of the busiest junctions in the British Isles, was a serious bottleneck which would have greatly hampered the through running of a close interval electric train service.

Those familiar with the layout will know that it forms the intersection of three principal lines. The main Southend—Fenchurch Street line, the London Transport District Line and the Tilbury—St. Pancras line, with the last coming in at the eastern end of the station and crossing the other lines from south to north at the western end. This latter arrangement was a serious cause of delay, since it was used by no fewer than 80 freight workings a day.

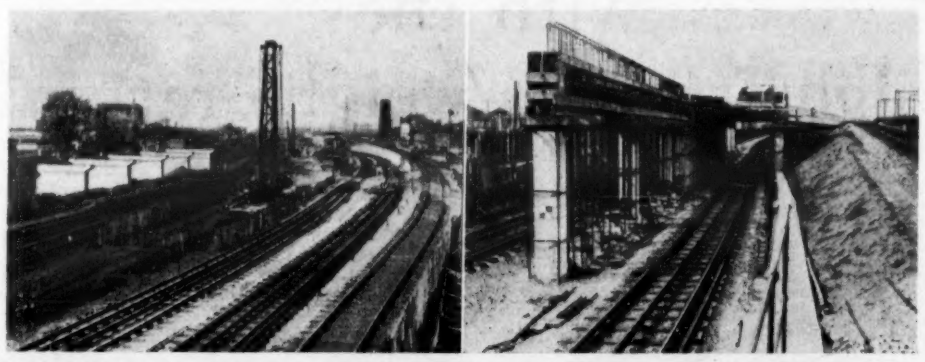
The aim of the reconstruction scheme has been to form a physical separation of the three lines, so far as that is possible. Thus the former crossing on the level by the Tilbury—St. Pancras line is now obviated by a fly-over to the west of the station, which takes the tracks over the Southend—Fenchurch Street main line and that of the L.T.E. Similarly the tracks used by London Transport will now be entirely separate. To accomplish this the westbound L.T.E. track will be taken through a dive-under beneath the main lines at a point east of Barking Station, and it will again cross the main lines on a fly-over to the west of the station. The eastbound L.T.E. line will be realigned, and the former terminal facilities at Barking will be retained with some lengthening of the existing platforms. The rearrangement of the running lines will allow cross-platform exchange between L.T.E. and Eastern Region services in both directions, and a box section concrete subway will give access to all platforms.



Track rearrangement in the Barking Station flying junctions



Due shortly for demolition, Ripple Lane No. 2 signalbox which formerly stood beside the main line, is now isolated in the middle of the marshalling yard site; the new bridge over the River Roding is now in use by the Tilbury—St. Pancras line



Looking west from the Tanner Street footbridge with the supports for the Tilbury—St. Pancras line fly-over on the left and, in the centre, a pile driver working on the supports for the descent from the westbound London Transport fly-over; right, a closer view of the intersection fly-over for the Tilbury—St. Pancras line

Subsidiary Structures

There is, apart from the two fly-overs and the dive-under, a number of subsidiary works. A new bridge for the northerly diversion of the Tilbury—St. Pancras lines west of the station has been put in over the River Roding. This is of welded steel construction with a concrete deck carried on mass concrete abutments and piers, with a total of three 56-ft. spans. New footbridges have been provided at Queens Road and Tanner Street. The latter is an imposing structure carried high enough to clear the fly-overs and overhead wiring. It is of steel girder construction with a maximum span of 95 ft. and is supported on slender precast reinforced concrete piers. A new concrete bridge has been built over Stevenage Road, and a number of the retaining walls is entirely of concrete.

West of the station it has been found necessary to use piles for the support of most of the structures. These are of the Holmpress expanded in situ type and, owing to the sulphate content of the ground water, metallurgical supersulphated cement has been used beneath ground level. The general maximum of 1 in 35 down and 1 in 40 up for electric lines, and to 1 in 80 where steam or diesel traction will also operate. Throughout the whole of the work normal passenger services have been maintained with the exception of a planned diversion of services from St. Pancras which are being terminated at East Ham for a limited period.

Ripple Lane Marshalling Yard

Work on the new marshalling yard at Ripple Lane is now well advanced, and it should be ready to hand over to the traffic department some time in October. The site, which extends for a distance of two miles, is immediately to the west of Dagenham Dock Station, and does not as yet bear much resemblance to the neat and orderly image that is representative of a marshalling yard. For as far as the eye can see, the scene is reminiscent of something out of chaos. Quagmire, rubble, pile drivers, heaps of water pipes and great mounds of prefabricated track lay scattered over the huge area like the remnants on a battlefield, and it is only by a closer inspection that one perceives the ordered pattern which is slowly but inexorably bringing this great scheme to fruition. Like the Barking scheme, this new marshalling yard is really a prerequisite for the electrification of the London, Tilbury and Southend line. Its purpose is to replace five existing yards: the up and down yards at Plaistow, and the yard at Little Ilford. Thus a large number of existing freight movements will be eliminated, leaving a clearer road for the intended electric services. The new yard is generally similar to the one which was recently brought into use at Thornton, and described in MODERN TRANSPORT of October 12, 1957. It consists of a set of eight reception sidings with a capacity of 557 wagons, an engine road, a hump line fanning out into 53 sorting sidings with a capacity for 3,318 wagons, and two each up and down departure sidings. There is also a group of secondary sorting sidings as well as the usual auxiliary tracks into and out of the yard. Direct access to the reception sidings is provided, and direct exit facilities are provided for outgoing traffic from certain of the sidings in the main balloon as well as from the departure sidings.

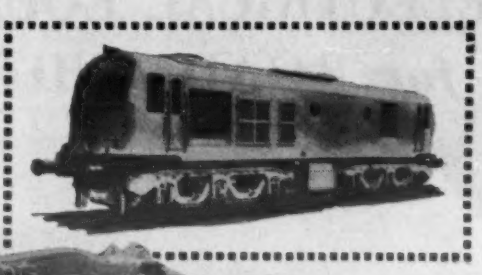
Structures

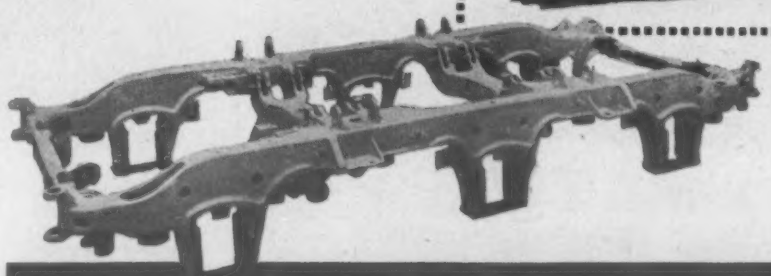
Structures include a new signalbox at the west end of the work, which will replace two on the existing layout. Apart from the hump cabin, control towers and maintenance staff facilities, there is a workshop for wagon repairs on the north side of the site. Facilities are also provided for the maintenance and fuelling of diesel locomotives, and a 75-ft. turntable, water column and ashpit for steam locomotives.

In the course of the work it has been found

(*Continued on page 16*)

6-wheel Cast Steel Bogie Frame for 1,200 h.p. diesel electric locomotives supplied to the Irish Transport Company (Coras Iompair Eireann) by Metropolitan-Vickers Electrical Co. Ltd., and built by Metropolitan-Cammell Carriage and Wagon Co. Ltd.





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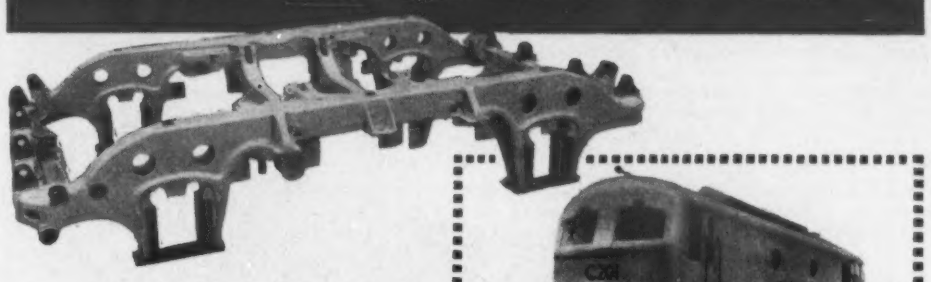
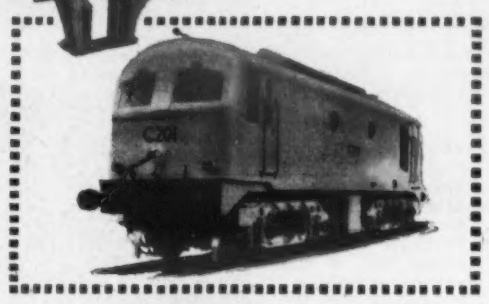


550 h.p. diesel electric locomotives supplied to the Irish Transport Company by Metropolitan-Vickers Electrical Co. Ltd., and built by Metropolitan-Cammell Carriage and Wagon Co. Ltd., are also fitted with "Commonwealth" one-piece Cast Steel Bogie Frames.



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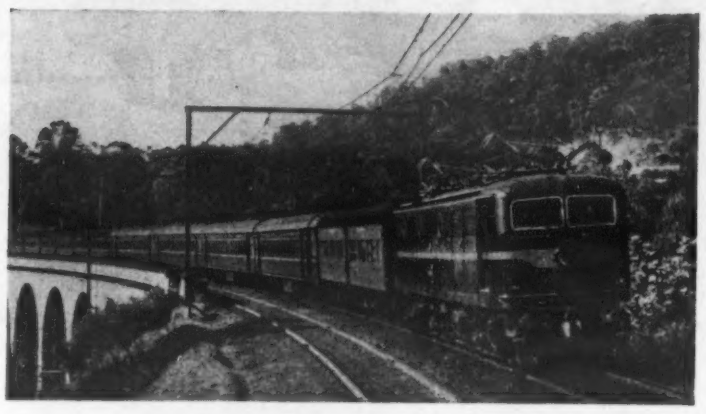
Over 3,000 trolleybus electrical equipments have been supplied by Metropolitan-Vickers—the photograph shows one of the new fleet of Ashton-under-Lyne trolleybuses fitted with Metrovick equipment.

by METROVICK



Railway installations have been supplied for all parts of the world—the illustration shows one of 40 straight electric locomotives supplied to the New South Wales Government Railways.

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NEWS FROM ALL QUARTERS

Trips on the Kennet and Avon

A passenger-carrying traditional narrow boat will operate from Reading to Burghfield on the Kennet and Avon Canal this year. So great was the response to invitations to attend the inaugural rally this weekend (March 22 and 23) that two further 70-ft. boats had to be secured from the Willow Wren Carrying Company to accommodate all guests. This is in addition to numerous private launches, cruisers and other craft attending. The Kennet Carrying Company is responsible for the new service, which will operate from April 2 until September 27.

South London Rail Tour

The Southern Counties Touring Society is organising a South London rail tour on April 20. A special pull and push train will start from Victoria Station at 3 p.m. and run over South London routes some of which were rail motor routes before electrification, also sections not used by passenger trains (special permission having been granted). The journey will be via Stewarts Lane shed, Factory Junction, Beckenham Junction, Norwood Spur, Epsom Downs, Wimbledon, Merton Abbey, Beddington Lane, New Cross Gate, Old Kent Road spur, and South London Line, also some goods lines.

Harbour Charges Scheme

When the inquiry before the Transport Tribunal on the B.T.C. harbour charges scheme opened on Monday this week, Mr. M. Lyall, Q.C., for the B.T.C., said that in 1956 net receipts of the docks division were about £2.5 million. The estimate of a proper annual contribution to central charges was £3 million. Over 10 years an aggregate contribution of £25 million was a fair estimate of what ought to have come in. In fact, the total was only £14 million, leaving a shortfall of £11 million. The scheme provides that maximum charges for ship and passenger dues at major ports shall be increased by 25 per cent of the charges operating in September last year.

Underground Service Economies

Proposed cuts in bus and Underground services by London Transport this summer include the closing of the Aldwych branch of the Piccadilly Line outside peak hours. It will remain in service on Monday to Friday between 7 a.m. and 10.30 a.m. and 3.30 p.m. and 7 p.m. and on Saturday between 7 a.m. and 2 p.m. This line carries about 1,500,000 passengers annually, but only about 1,500 daily outside the peak hours. A number of secondary exits at stations will be closed after Easter to reduce ticket collecting labour costs. They include the Marylebone Road entrance to the east end of Edgware Road (Metropolitan Line) Station, and the entrance nearly opposite Madame Tussauds to Baker Street (Circle Line) Station; both these entrances will be closed permanently. At off-peak hours the subway entrance to London Bridge Station (Northern Line) and the Palmer Street entrance to St. James's Park Station will be closed. At Leyton Station, the Langthorne Road entrance will be open for incoming passengers only up to 9 a.m.

Road Estimates Published

Civil estimates published last week include £81,086,950 on roads during the coming financial year. This is £13,452,430 more than expenditure in the current year.

Road Casualties in January

In January 470 people died as the result of accidents on the roads of Great Britain; the seriously injured numbered 4,600 and the slightly injured 14,671. The total of 19,741 is 3,608 more than in January of last year, when petrol rationing was in force, but about the same as in January, 1956. The Road Research Laboratory estimates that traffic on the main roads was 39 per cent heavier than in January, 1957.

Car Sleepers from London to Glasgow

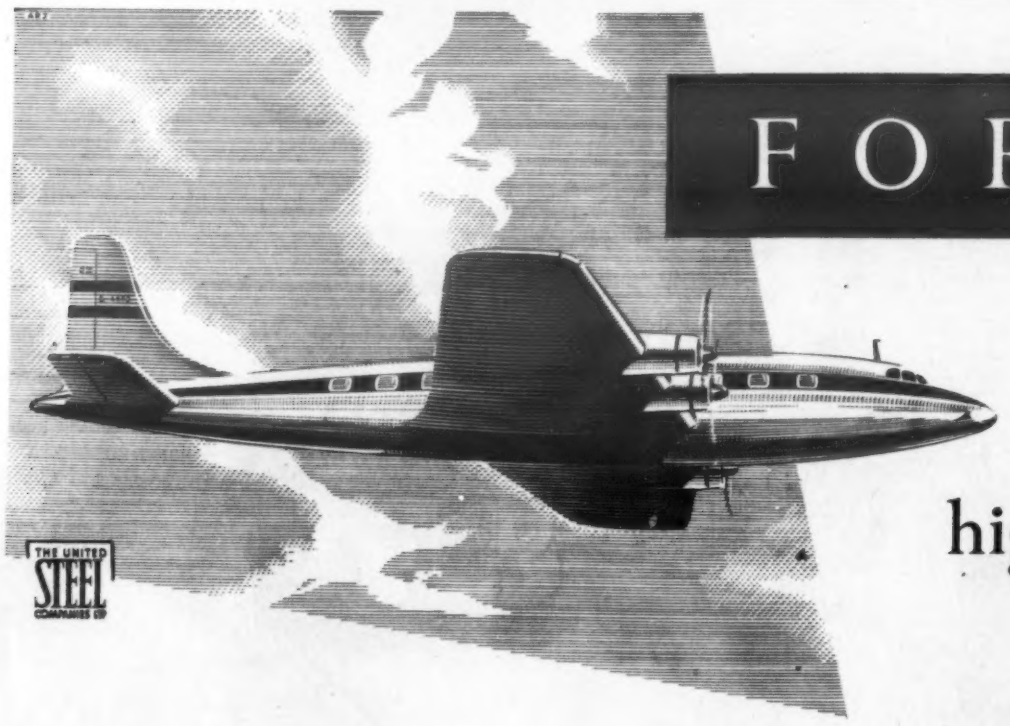
Another overnight car-sleeper train is to run from London to Scotland during the summer. It will leave Marylebone for Glasgow St. Enoch each Tuesday, Thursday and Sunday from May 4 to September 25. Return services are on Mondays, Wednesdays and Saturdays. The trains have accommodation for 20 cars in covered vans and 84 passengers in second-class sleeping berths. Packed suppers can be provided if required before departure and breakfast on arrival at destination.

Stations Closing

The North Eastern Region has decided, because of the financial loss being incurred, to close the section of line between Loftus and Whitby West Cliff. On and from Monday, May 5, therefore, the undermentioned stations will be closed: Staithes, Hinderwell for Runswick Bay, Kettleness, and Sandsend. Concurrently with the closing of the line, an augmented service of diesel trains between Middlesbrough and Whitby via the Esk Valley route will be brought into operation. There will also be a service of diesel trains operating between Middlesbrough and Loftus. Ingrow West Station (near Keighley) was converted into an unstaffed halt from March 17. Tickets will be issued by conductor-guards.

Market Survey on Passenger Trains

The London Midland, Eastern, North Eastern and Scottish Regions of British Railways this week undertook another customer survey, starting on Monday, in which passengers on certain of the trains between Manchester—Glasgow, Birmingham—Glasgow, West Riding, including Sheffield—Glasgow and Edinburgh were invited to make suggestions in regard to the various train services. This survey is undertaken in order to find whether the present services meet the needs of businessmen and other regular travellers. Passengers are asked to indicate the approximate number of journeys they undertake each year, whether any of the present trains are not convenient and, if additional trains are thought to be required, to state approximate convenient times. Questions are also posed with a view to obtaining some measure of the potential passenger traffic if additional services could be arranged. A similar questionnaire is also being sent to Chambers of Commerce, traders and other organisations.



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COMMERCIAL AVIATION

European Weather

TICKET CONFIRMATION

THE joint meteorological telecommunications meeting of the International Civil Aviation Organisation and the World Meteorological Organisation for the European Region recently completed its work in Geneva and made far-reaching recommendations concerning both the exchange of meteorological information between ground stations and the transmission of this information to aircraft in flight. The entire system of exchange of weather information in Europe was also thoroughly reviewed. It was proposed that a new system of radiotelephony ground to air broadcast on very high frequencies should be set up progressively and not later than by April 1, 1960. It was decided that 23 stations would be necessary and 14 more may have to be established; as a consequence of the increased use of radiotelephony, radio telegraphy facilities would gradually disappear. In addition to the existing landline teleprinter system, a new landline teleprinter system must be set up within 10 circuit areas in the European Region for the exclusive use of exchange of the operational data (actual weather in detail at aerodromes and forecasts of weather conditions at these aerodromes) between ground stations.

This system is expected to be in operation on April 1, 1959, to meet the requirements established by the recent I.C.A.O. regional air navigation meeting for the European-Mediterranean region. A professional European co-ordinating and implementing panel should handle this important scheme and later on a permanent M.O.T.N.E. (Meteorological Operational Telecommunications Network for Europe) group composed of representatives of each relay centre of the 10 circuit areas should act as a co-ordinating and monitoring group for the smooth functioning of the new system. An obsolete radio broadcast system for ground exchanges should be eliminated as soon as possible except for the Eastern Mediterranean area in the region. For the exchange of basic information (information needed for the establishment of the weather charts) it was agreed to improve the present landline teleprinter system and to replace the obsolete morse broadcasts by the more rapid radioteleprinter broadcasts system. The recommendations will shortly be studied by the I.C.A.O. Air Navigation Commission in Montreal and submitted to the council of I:C.A.O.

C.S.A. to Serve Brussels by TU104

C.S.A. (Czech Airlines) will operate its Prague—Brussels service with TU104 jet air liners from April 1. The thrice-weekly flight will take 1 hr. 10 min. instead of the 2 hr. 50 min. which it has allowed the IL14s at present in use. Passengers for Moscow should arrive 4½ hr. after leaving Brussels including an hour's stopover at Prague.

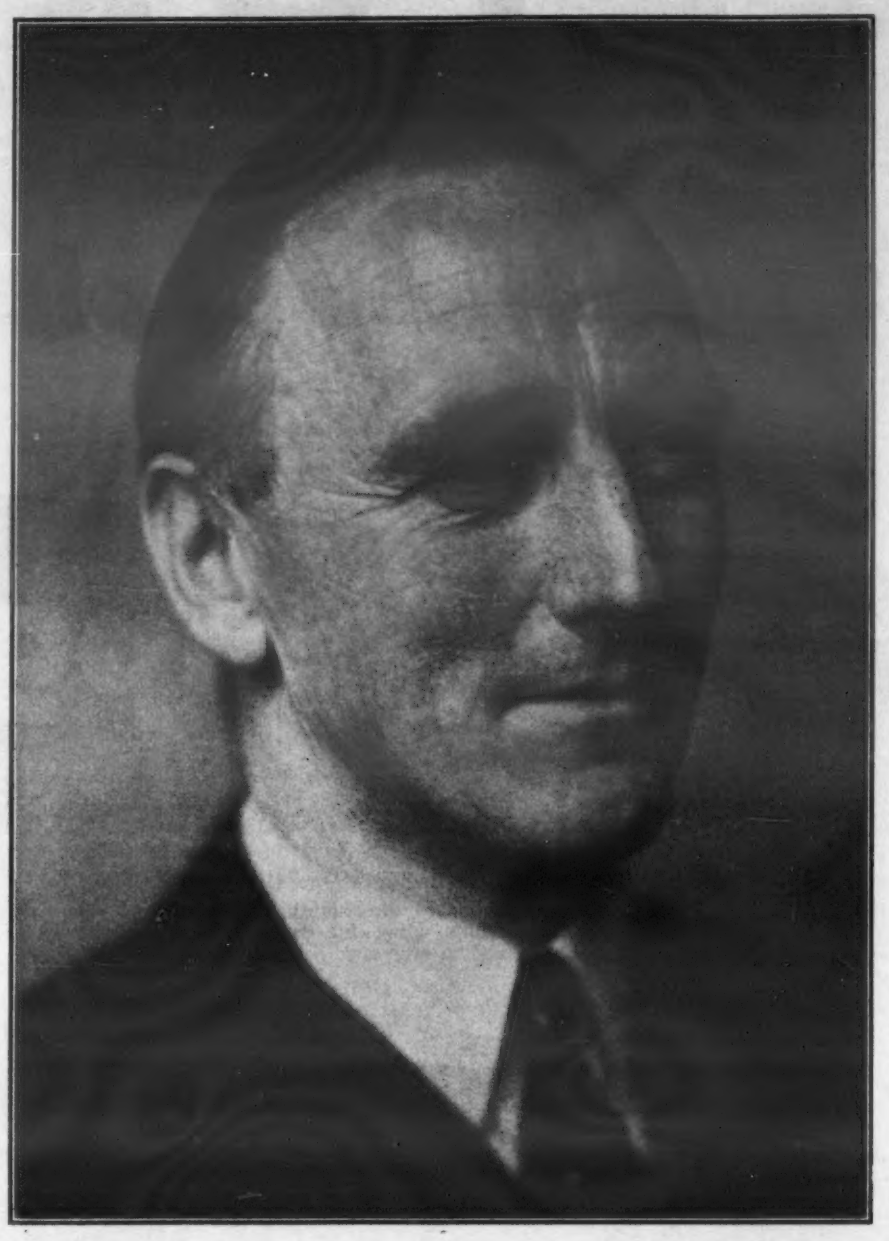
K.L.M. Summer Services

Increased frequencies this summer in services to many parts of the world and the inclusion of Kuala Lumpur (Malaya) and Saigon (Vietnam) in the network have been indicated by Mr. I. A. Aler, president of K.L.M. (Royal Dutch Airlines). In the peak months, 46 return flights will be operated each week over North or South Atlantic routes. To New York, 14 flights will be operated in economy class configuration with Lockheed Super Constellations and a further 14 flights in Douglas DC7Cs for mixed tourist/first/ SleepAir passengers. In addition, six services each week in mixed configuration, including economy class, will operate to Montreal. Services to Houston, Texas, will be increased to four times weekly and to Mexico twice weekly, on which economy class travel will be available. In the Far East, Kuala Lumpur (subject to Government approval) has been included on the Amsterdam—Singapore service and Saigon on the Tokyo service. Frequencies have also been increased to Manila and to Biak. In the Middle East, a new service, terminating at Abadan, will be introduced, departing each Sunday and returning the following day, and there are more flights to Ankara and Tehran. Within Europe, the entire Viscount fleet is now in operation. There will be eleven services per day between London and Amsterdam (in pool with B.E.A.), five a week from Manchester to Amsterdam and thrice-weekly from Dublin (in pool with B.E.A. and Aer Lingus). On the Continent, there will be a daily connection to Vienna and the Amsterdam—Paris service will be strengthened to four return flights daily. Viscounts will operate this route as well as the Luxembourg—Nice—Madrid service thrice weekly. The Amsterdam—Brussels service will be operated in conjunction with Sabena and S.A.S. at thirty return flights per week.

New Ticketing and Reconfirmation Rules

New ticketing time limits and reconfirmation rules for international passengers on airlines serving the United States, Canada, Mexico and Cuba will take effect on April 1, the International Air Transport Association has announced. They are designed to improve reservations services to the public and to make the best use of every available seat on the popular and heavily travelled international routes out of these four countries, particularly across the North Atlantic. They are basically similar to requirements already in effect for domestic travel wholly within or between the U.S. and Canada. All passengers booking space on international flights out of the Continental U.S., Canada, Mexico and Cuba will be required to observe the new ticketing time limits. Passengers making advance reservations more than three days before scheduled flight departure will be required to buy their tickets not less than 72 hr. before take-off, or within 48 hr. after the airline has confirmed their reservations, whichever is later. If they make their reservations less than 72 hr. before take-off, they must purchase their tickets as soon as practicable after space has been confirmed, the actual time to be agreed between the passenger and the booking agent. If the ticket has not been bought within the allotted time, the airline will be free to cancel the reservation and to turn the space over to another passenger. The ticketing time limit also applies to passengers holding "open" tickets. Under the new reconfirmation procedure, passengers on international flights out of the United States or Canada must reconfirm their continuing or return reservations not less than 6 hr. before scheduled departure, unless their stopover is shorter than 12 hr. Passengers who hold confirmed space on westbound flight from the United Kingdom, Ireland or Continental Europe to the United States and Canada over the North Atlantic must reconfirm their transatlantic reservations not less than 48 hr. prior to departure, unless their scheduled stopover is shorter than 48 hr.

PORT OF LONDON AUTHORITY



Simon

The Right Hon. VISCOUNT SIMON, C.M.G.

• • • • • •

As already recorded in MODERN TRANSPORT, John Gilbert Simon, second Viscount Simon of Stackpole Elidor, has been appointed chairman of the Port of London Authority in succession to the late Viscount Waverley. He has come to this important office with some thirty-four years' shipping experience and, as a managing director and deputy chairman of the Peninsular and Oriental Steam Navigation Company, he is also in touch with air transport and general engineering problems through the wide interests of that group. Born on September 2, 1902, Lord Simon was educated at Winchester and Balliol College, Oxford, and then, from 1924 to 1936, served in India and Ceylon with Mackinnon, Mackenzie and Company, the managing agent of the British India Steam Navigation Co., Limited. In the latter year he was appointed an assistant manager of the P. and O. company. In January, 1940, only four months after the outbreak of the war, he joined the staff of the Ministry of Shipping, which was later to be merged in the Ministry of War Transport, and in 1945 he became director of the Liner Division. When he returned to the P. and O. in 1947, he did so as a managing director and in 1952 he was appointed a deputy chairman. He is the immediate past president of the Chamber of Shipping of the United Kingdom and has been a member of the Port of London Authority since 1950. He is a director of a number of companies in the P. and O. group and holds similar offices in the British India company to those in the parent concern. Other companies on the boards of which he serves include the Shipping Federation, Limited, and Williams Deacon's Bank, Limited, and he is a member of the Dover Harbour Board. He succeeded to the viscountcy in 1954, was awarded the C.M.G. for his services to the Ministry of War Transport in 1947. Viscount Simon is an officer of the Order of Orange Nassau.

IN PARLIAMENT

Right of Appeal in P.S.V. Cases

REPORT ON STAGGERING

UNDER the terms of the Tribunals and Inquiries Bill, which received its first reading in the House of Lords last week, there will be a right of appeal on a point of law to the High Court and thence to the Court of Appeal (in Scotland the Court of Session) against a decision by the Minister of Transport on appeal from the traffic commissioners. Any person who had, or if aggrieved would have had, a right of appeal to the Minister (whether or not he exercised the right) will have the power to appeal to the High Court or to require the Minister to state a case. There will be a similar right of appeal against the findings of a referee or board of referees constituted under the Transport Acts, 1947 and 1953, for compensation and pension cases.

The area traffic commissioners and licensing authorities, also the Transport Tribunal, will come under the review, both as to their constitution and working, of a Council of Tribunals to be appointed under the Bill. This Council will have 10 to 15 members, of whom three will form a Scottish Committee, and it will be appointed by the Lord Chancellor and the Secretary of State for Scotland. It will make recommendations on the membership of tribunals and will present an annual report to the Lord Chancellor and the Secretary of State for Scotland, which will be laid before Parliament. The Bill is due to receive its second reading on April 1 and it is hoped that it will be in force before the end of the year. The Government has not accepted the recommendation of the Franks Committee, which gave rise to the report, that free legal aid should be extended to persons appearing before formal and expensive tribunals, or before final appellate tribunals.

Railway to Prestwick Airport?

In replanning Prestwick airport the Minister of Transport is to examine the possibility of a direct rail link to and from Glasgow, it was stated.

Progress Report on Staggering

The Minister of Transport told MR. ERNEST DAVIES that the report of the first year's work of the committee conducting the campaign for the staggering of working hours in Central London was due to be published on April 2.

More Enforcement Threatened

Before very long it should be possible for the M.o.T. to tighten up considerably the operation of the Road Traffic Acts, MR. H. WATKINSON assured MR. ERNEST DAVIES. The approved establishment comprised 100 traffic examiners permanently on enforcement and as many others as could from time to time be released from driving-test duties. Mr. Watkinson reminded Mr. Davies that he was recruiting more examiners and, when fewer driving tests were outstanding, the number of enforcement officers should be sufficient. During the last quarter of 1957 there were 565 convictions for offences under section 19 of the 1930 Act, compared with 594 in the same quarter of 1956 and 1,407 convictions under section 16 of the 1933 Act, compared with 1,345 in 1956.

AUTOMATION STUDY

Conference Group Formed

STUDY of the techniques, machines and concepts of automation, automatic control and computation has been intensified in recent years and interest has been aroused in all branches of science and industry. This widespread interest led to a decision by some 20 interested bodies to set up an organisation, to be known as the British Conference on Automation and Computation, to facilitate the exchange of information on the activities in this field of individual societies.

This new organisation has been divided into three groups—for the engineering application of automation; for computation and automatic control; and for the sociological and economic aspects of automation techniques. After a series of preparatory meetings, a meeting was held on February 20 at which Group A—The British Group for the Engineering Applications of Automation—was formally constituted. At present, the following societies have associated themselves with the group: Institutions of Mechanical, Civil, Electrical, Chemical, Production, Gas, Mining, Municipal and Structural Engineers; Incorporated Plant Engineers; Institutes of Fuel, Marine Engineers; Materials Handling, Metals and Welding; Institutions of Engineering Inspection and the Rubber Industry; Iron and Steel and Plastics Institutes; Royal Aeronautical Society; and Society of Instrument Technology.

Objects of the Group

The objects of the group are to foster the development of the engineering applications of automation; to afford a common meeting ground for the adhering organisations; to maintain liaison with other groups of the British Conference; to encourage and co-ordinate the presentation of appropriate British papers at international conferences; and through the general committee of the conference to maintain liaison with the corresponding national committees of other countries.

Dr. D. F. Galloway, a member of council of the Institution of Mechanical Engineers, was elected chairman of the group, with Mr. J. S. Brough and Sir Walter Puckey (past-president of the Institution of Production Engineers) as vice-chairmen. Mr. Brian G. Robbins, secretary, Institution of Mechanical Engineers, was elected honorary secretary of the group and the offer of the Institution of Mechanical Engineers to provide secretarial services for the group was accepted. The constitution of the new group provides for the election of additional member societies. Applications for membership should be sent to the Honorary Secretary, B.C.A.C., Group A, Birdcage Walk, Westminster, London, S.W.1.

From Monday, March 24, the postal address of the Sheffield district office of Metropolitan-Vickers Electrical Co., Limited, will be 9 Market Place, Sheffield, 1. Telephone numbers (Sheffield 23114, 5, 6, 7 and 27848) will remain unchanged.

G. D. Peters and Co., Limited, has been officially appointed as agent and distributor for Permadec flooring, for use on road and rail transport vehicles. This product, manufactured by Permali, Limited, is made from completely impregnated densified wood to withstand severe mechanical, electrical and chemical conditions.

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7.00-20, 8-ply tyres, dual rear. Tubeless tyres optional at no extra cost with heavy-duty single piece wheels.

that's Bedford economy!

No other 3-tonner on the road today offers anything like the heavy-duty performance of these rugged Bedford money makers. Just look at their proved economy figures: 22.86 mpg at 27 mph average speed *hauling a 3¾-ton payload.* That's the kind of economy that pays you extra dividends! And with a maximum gross weight of 6 tons 3¼ cwt. you know your truck is engineered for the toughest assignments.

Take your pick of diesel or petrol for Bedford 3-tonners. With Bedford's own new 4-cylinder direct-injection diesel, based on the amazingly successful 6-cylinder design, you get phenomenal economy, lightly or fully loaded. The improved Bedford 100 bhp petrol engine is the top petrol engine for economy, long life and extra pulling power throughout the speed range. See your local Bedford dealer for full details of these top value 3-tonners, or write to Vauxhall Motors Limited, Luton, Beds.

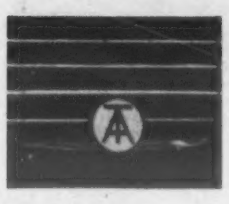
Better buy Bedford—you see them everywhere!

Vauxhall Motors Ltd., Luton, Beds.

FIFTY HAULIERS IN A TEAM

Self Help—and Service to the Customer

TRANSPORT ASSOCIATION A NATIONAL GROUPING



Nearly 2,000 lorries are entitled to wear this badge, the symbol of Transport Association. The aims and operations of this interesting group of 52 hauliers located throughout Britain are outlined in our article

RANKING high among the difficulties which road haulage presents to a would-be transport planner has always been the extreme diversity in scale of its participants, all of whom are, moreover, to use the term beloved of economists, in "perfect" competition for the traffic that is going. The sense of disparity in the make-up of the industry has, of course, been greatly intensified with the evolution of a nationally-owned system which is at once all-embracing and self-sufficient. In a recent paper to the Institute of Transport in which were examined the advantages (and the disadvantages) of such an organisation in the field of road transport the author had this to say:

"A small haulier . . . is not so flexible (as a large undertaking) when it comes to the question of coping with fluctuations in the volume or types of traffic to be handled, or where the need for special ancillary services or for varying types of vehicles arises spasmodically. At best he must rely on his ability to hire from outside sources."

To most people this makes sense: the haulier with maybe 10 or 20 vehicles needs no advice on how to operate them to best advantage, but when he has to go outside for hired transport he is often exposed to the shortcomings of another who may not be imbued with the same ideals or even the same sense of urgency.

Grouping Spells Elasticity

Is there then no means by which our haulier can as it were build elastic sides to his business in order to keep his favourite customers happy? Must he incur heavy capital expenditure on additional vehicles, assuming he can secure licences for them, and on new offices and depots? The varying success of hauliers' pools or interworking organisations seems to suggest that, if the will and the enthusiasm are there, an individual haulier, working in such a team, can make himself even more useful to his customers and at the same time reduce empty running on return journeys, all within the confines of his existing business.

There is nothing novel in either the hauliers' pool, which may be a loosely knit organisation of several hundred operators, usually on short-distance work within a relatively small area, and where a management company allocates traffic among those with available vehicles, or the mutual-aid group wherein hauliers running into one another's territories arrange backloading and terminal services for co-members.

Undoubtedly the largest inter-working group now in existence is Transport Association, born in 1946 out of a realisation that postwar transport conditions were going to be tough and resuscitated in May, 1955, after denationalisation (the whole organisation was swallowed up in British Road Services) in the expectation that they would be even tougher. At the moment it has 52 members who, it is claimed, have almost 2,000 vehicles between them. These operators are for the most part in a fairly large way of business and they have offices or depots in almost every large town or city from Inverness to London, Carmarthen to Norwich, with nightly trunk or regular services linking them. Each member retains his own identity.

Umbrella Coverage

It follows from this that there is scarcely any class of traffic which members individually or collectively are not carrying, from general traffics through parcels, new furniture and removals, livestock, timber, abnormal loads, bulk liquids, to tipping and insulated traffic and contract hire. In addition there are warehousing and distribution facilities at many places. Members have a substantial reservoir of engineering equipment, including cranes and workshop facilities, to deal with jobs of magnitude. With an eye on Continental traffic, they have formed a small committee to study and advise on this complex development. A gazetteer tells any one member what his partners in T.A. can supply in the way of facilities.

Experience suggests that interworking flourishes in direct ratio to the effort which is put into it, to the enthusiasm of those enrolled and, of course, in the final analysis, to the volume of traffic which they are able to put into the pool. This is not to say that all members must be "creditors"; the haulier who only secures return loads from fellow members and has nothing to give those who call on him is nevertheless playing a useful role, notably if he can give a delivery service, and perhaps storage and re-distribution, in a fairly remote part of the British Isles.

Entry into Transport Association is not automatic and many aspirants have been turned down. What is looked for is evidence of financial stability in order that the newcomer will honour his obligations promptly, and a real personal interest by the family or directors owning the business. It is from this that T.A. hopes for, and indeed achieves, the degree of enthusiasm for co-operative effort which is making the organisation work. Generally speaking, new members are chosen from areas not already represented; it will also be in their favour if they have terminal facilities available for visiting vehicles.

Committee Work Minimised

Management of the affairs of the Association requires surprisingly little paper work or procedural fuss and certainly a minimum of committee meeting. A secretarial service is provided by Frank Impey and Company, Birmingham accountants, and the Association conducts its affairs principally through the medium of bi-monthly meetings of all members. One of these six meetings is held in Edinburgh to give recognition to the importance of Scotland in the make-up of Transport Association, the others are held in London. Presiding at these meetings is the chairman, at present Mr. E. B. Greenwood, of Ramsey, Hunts. There is additionally a meeting for traffic managers in October of each year at Southport.

No headquarters staff means no overhead costs. In practice, a levy is from time to time made upon members on the basis of unladen tonnage owned in order to defray the irreducible minimum of secretarial expenses, printing, postage and so on. The Association is not a limited company nor a trading concern in any way. Its business, which is that of moving traffic, has therefore to be carried out by each individual member within the limits of his own managerial and clerical resources. "It is necessary to take cognisance of the fact that there is a dangerous tendency for the overheads of large organisations to grow," says the paper already quoted. If Transport Association, and others like it, can extend to the individual haulier at least some of the resources of a more comprehensive undertaking, but without increasing its overheads, the resulting economies could be clear gain to the user.

Striving for Improvement

How effective is Transport Association in grappling with the specific problem of return loading on the one hand, and in satisfying the day-to-day requirements of customers on the other? It is not claimed that perfection has been achieved thus far. However, many members are already seriously tackling the business of priorities in back loading and have agreed that the foreign-based vehicle which reports to them shall be loaded in preference to initiating a journey with one of their own vehicles.

One gathers that there is not the element of rigidity here which may exist in British Road Services, but there is no tendency to decry the benefits of experience which many members had in that undertaking. One of the disadvantages which a voluntary association of hauliers suffers is indifferent communications. An operator with a vehicle going into a distant town without a return load in prospect may be unwilling to spend the money on an advance telephone call to his member there.

Vehicle Advising

To rely on postcard services (and the goodwill of the G.P.O.) is often to court a lorry returning empty and in T.A. most members have decided that a larger telephone account represents no luxury. Efficient vehicle reporting is the core of successful inter-working, but drivers have to be brought into the picture also. For them it is a matter of telephoning the preadvised office or depot as soon as they are unloaded, or if unforeseen delays occur. Breakdowns can be speedily attended to in much the same way. During his stay in the distant town the driver of a member who has no office there will be looked after by the local member. His vehicle may be garaged or refuelled, running repairs can be carried out, additional sheets and ropes or other tackle loaned if necessary.

Transport Association is a kind of halfway house between the mammoth road haulage undertaking and an individual enterprise. It brings to the aid of each participant considerably greater resources than he can, or may even wish to command, while allowing him undiminished freedom of decision and action. It cannot summon up for him an insulated vehicle if none exist; on the other hand, it does not debar him from buying one if he sees a need for it. It does not seek to restrict or direct the number of places he shall serve nor how many vehicles he shall use, but it endeavours to provide return loads and facilities for all or any of them. Personal service, which is the principal stock in trade of the independent haulier, is thus given an added flexibility.

Trader's Viewpoint

The reader may, of course, ask how personal is the service given by a sub-contractor's vehicle and it is well known that some traders will have nothing to do with them. They dislike the element of risk in terms of damage, theft or delay present when a sub-contractor's driver calls for their traffic, but presumably this driver has a least as equal an interest in the load as one employed by a very large organisation who may be

(*Continued on page 16*)

THE MEMBERS OF TRANSPORT ASSOCIATION

Aber Carriers (1954), Limited, Welshpool.
Ackworth Transport Co., Limited, Ackworth, nr. Pontefract.
Amey's Transport (Oxford), Limited, Abingdon, Berks.
Andy's Transport, Limited, Banbury.
Baker's Transport (Southampton), Limited, Southampton.
S. A. Bell, Limited, Bridlington, Yorks.
Beresford Transport, Limited, Tunstall, Stoke-on-Trent.
D. Callander (Forfar) Limited, Forfar.
Craddock Brothers, Coven, nr. Wolverhampton.
D.M.T. Transport, Limited, Lincoln.
John Duncan (Removals), Limited, Edinburgh, 3.
Elliott's Transport (Newport), Limited, Newport, Mon.
Entress Transport, Limited, Swansea.
Fearings Transport, Limited, Burnley.
Greenwood's (Contractors), Limited, Ramsey, Hunts.
Guest Carriers (Hackney), Limited, London, E.8.
Guest Scottish Carriers, Limited, London, N.18.
H.H.V. Guest Road Services, Limited, Bath.
Alfred T. Hartshorne, Limited, Wednesbury, Staffs.
Hewson Brothers (Howden), Limited, Howden, nr. Goole.
G. B. Hicks, Limited, London, E.15.
Highland Haulage, Limited, Inverness.
J. W. Hodgson Transport, Limited, Carlisle.
A. Hudson and Sons, Pudsey, Yorks.
Jay-Pee (Transportation), Limited, Warrington.
Johnson Brothers (Gilcrux), Limited, Aspatria, Cumbs.
D. McKinnon Transport, Limited, Kilmarnock, Ayrshire.
Miller and Gordon, Limited, Liverpool, 7.
Morton's (Coventry), Limited, Coventry.
Myatt's Transport, Limited, Cudworth, nr. Barnsley.
Onward Road Transport (Selby), Selby, Yorks.
T. J. E. Price (Cardiff) Limited, Cardiff.
Road Services (Caledonian), Limited, Dumfries.
Road Services (Forth) Limited, Denny, Stirlingshire.
F. and F. Robinson (Stockton-on-Tees), Limited, Stockton-on-Tees.
Roudham Transport, Limited, Norwich.
Saddlers Transport, Limited, Leith.
John Smillie, Limited, Glasgow, S.W.1.
D. M. Smith (Transport), Limited, Wishaw, Lanarkshire.
Smiths of Eccles, Limited, Urmston, nr. Manchester.
Springfield Transport, Limited, Salford 5, Manchester.
W. Staniland and Son, Limited, Broughton, Brigg.
Sutherlands of Peterhead (Road Hauliers), Limited, Peterhead.
W. S. Thomas and Sons, Limited, Carmarthen.
W. Townsend and Co., London, E.3.
Trowbridge (Sheffield), Limited, Sheffield, 9.
Turners (Soham), Limited, Ely, Cambs.
Warringtons Transport (1955), Limited, Sheffield, 6.
Welch's Transport, Limited, Stapleford, Cambs.
Wharf Transport Co., Limited, Stockport.
Wheeler Road Transport, Limited, Sheffield, 8.
G. and D. Wood (Transport), Limited, Redditch, Worcs.

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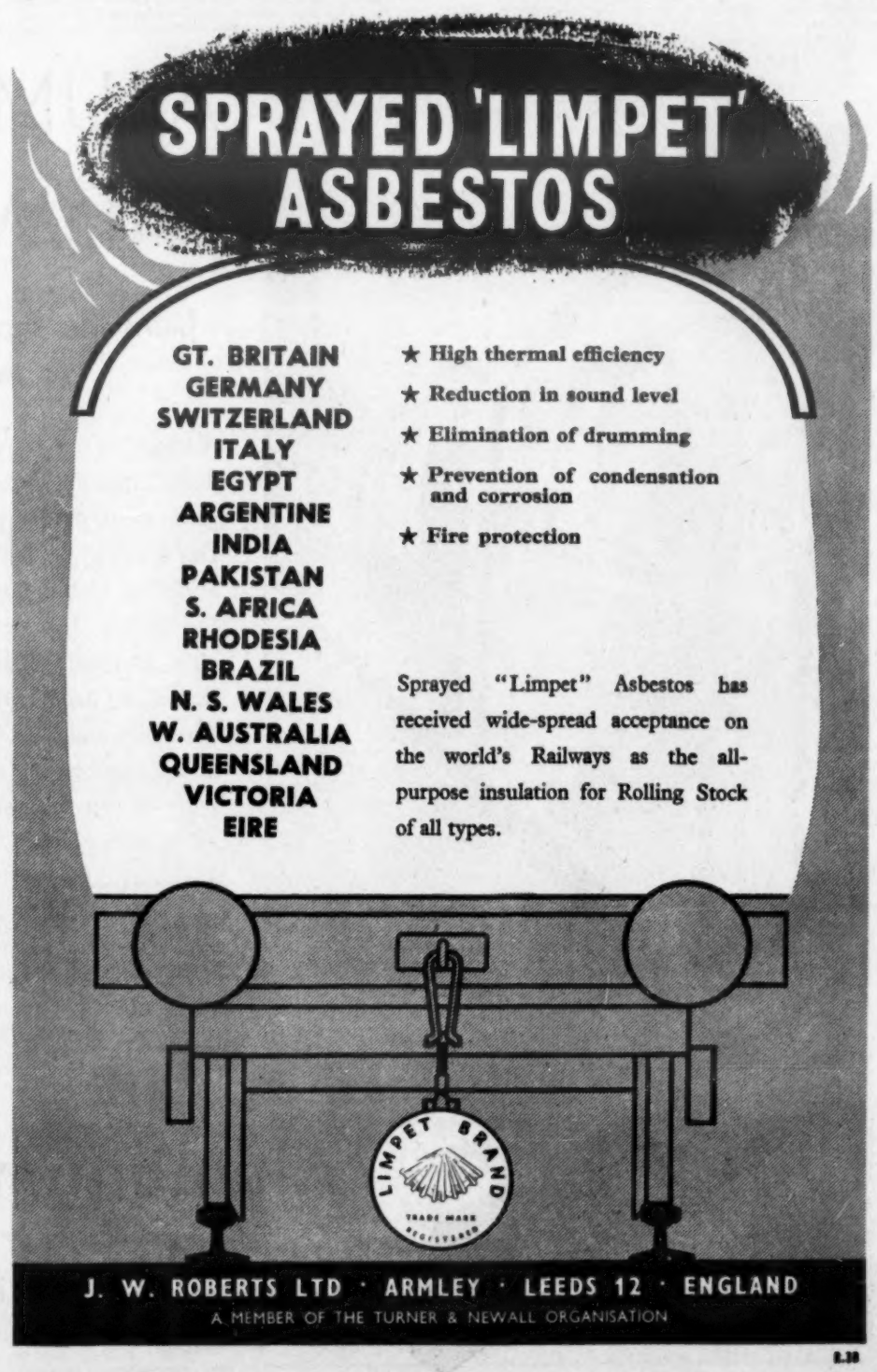


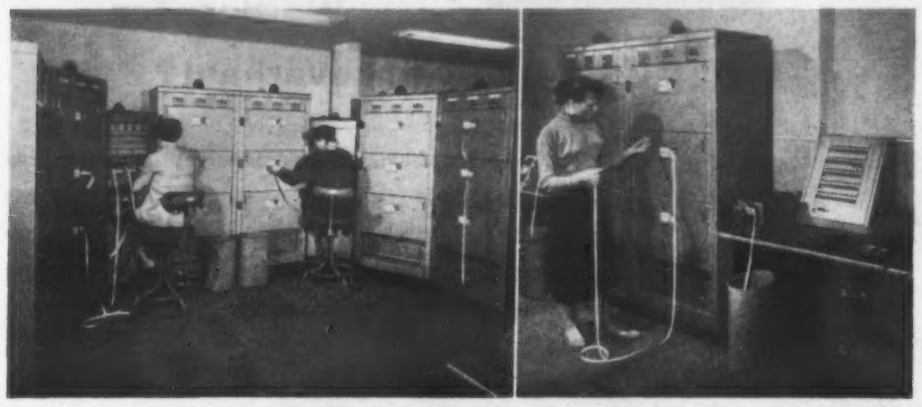
HUB OF B.R.S. TELEPRINTER SYSTEM

London Tape Relay Centre

PRESS-BUTTON ROUTEING CUTS MESSAGE TIMES

FASTER message handling and an increased reserve capacity was created for the British Road Services nationwide teleprinter network with the coming into use in January of its new London teleprinter centre at 238 City Road, E.C.1. The centre, occupying the top floor of a warehousing now undergoing complete conversion into offices, was given a formal opening on Wednesday last week by Mr. Claud Barrington, a member of the B.R.S. board of management.

A press-button tape transfer system, the first of its kind to be installed by the G.P.O. engineers, is the heart of this central tape relay station. All long-distance traffic is routed through the London terminal: a message from, for example, Glasgow to Southampton, arrives in London in the form of printed and perforated tape, being thus immediately legible. The operator severs this incoming tape from the machine, reads the printed route code indicating the destination, feeds the length of tape into any one of six auto-transmitters at her disposal and presses the Southampton route button. A few seconds suffice for these operations and the overall transit time for a 60-word message between these points would be about 2½ min. There is no walking for the operator, transit times are reduced and an overall saving of £7,000 per annum in the London centre is anticipated.



Two operators at the press-button tape transfer positions, flanked by printing reperforators in consoles; right, the broadcast switching panel, with its associated tape channel and auto-transmitter

Largest Telex System in Britain

The B.R.S. network embraces the whole of the United Kingdom and message traffic can also be exchanged with customers in this country and subscribers abroad to the telex system. It employs 130 stations and 370 teleprinter and facsimile machines, making it one of the largest private teleprinter systems in Great Britain; in fact, the undertaking employs more G.P.O. telex teletelex, facsimile machine, telephone, pneumatic tube or hand delivery. The teleprinter is chiefly of value for the sort of message which is of a routine and factual character—pre-advice of vehicle movements, rates matters, urgent proof of delivery, load discrepancy reports, special delivery instructions, and so on. In addition, weather reports and general information of that character may be broadcast to all or any depots at will.

The City Road message centre comprises three principal rooms, (*a*) tape transfer room; (*b*) facsimile, phonogram and documentation room; and (*c*) London local machine room. It has also three functions:

(i) Principal transfer centre for the long-distance tape relay network.
(ii) A transfer and documentation point for messages coming in from the long-distance network to B.R.S. offices or customers in the London secondary system area. This extends from Windsor in the west to Margate in the east, and from Bishops Stortford in the north to Brighton in the south.
(iii) A transfer and documentation point for messages originated in any B.R.S. office or depot or by any B.R.S. customer within the local London system area, addressed to any B.R.S. address anywhere in the U.K.

In the tape transfer room there are positions for four operators to handle incoming tape on printing reperforators. This traffic is received from provincial teleprinter terminals or is London area traffic (received from the London room) for routeing outwards. Each operator controls eight reperforator channels (there is one spare) and after severing the tape and reading the route code printed at the commencement of the message, she inserts the tape into one of the six auto-transmitter heads before her and depresses the appropriate destination button, of which there are 46, each controlling an outward route. If the channel is already engaged a green light glows continuously, if the delay exceeds 4 min. a red light glows.

When it is desired by headquarters or elsewhere to send a message simultaneously to more than three addresses the incoming tape is diverted to a broadcast position in the room. Here an operator sets up the desired routes on a battery of destination switches, inserts the tape into an auto-head and when all the channels have been secured from the tape transfer machines, transmits the message. If a normal tape relay route goes out of action, there is provision for sending messages over the public telex system, using a supervisory jackfield.

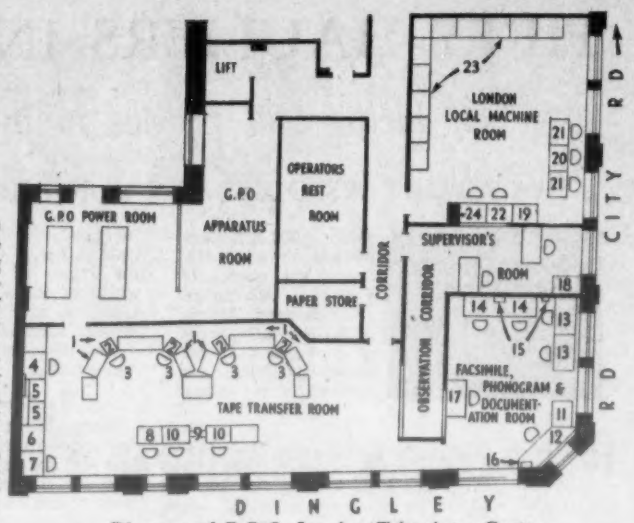


Diagram of B.R.S. London Teleprinter Centre

KEY TO OPERATING POSITIONS

Tape Transfer Room
1. Tape receivers
2, 3. Transmit consoles and operators
4. Broadcast position
5. Standby machines
6. Telex auto
7. Standby telex (receive)
8. Standby telex (send)
9, 10. Supervisory jackfield and teleprinters

Facsimile, Phonogram, Documentation Room
11. Page teleprinter from tape
12. Facsimile machines
13. Phonogram positions
14. Documentation positions
15, 16. Tubes to local machine room
17. Post desk
18. Supervisor's teleprinter

London Local Room
19. Tape from tape transfer room
20. Routeing desk
21. Teleprinter to tape transfer room
22. Telex machine
23. Teleprinter to London depots
24. Tube to facsimile room

Facsimile Machines

Facsimile and phonogram traffic, together with documentation, is the function of a second room. Facsimile working is resorted to for depots with insufficient traffic for a teleprinter and trained personnel. A handwritten message placed in a Creed facsimile machine is transmitted from City Road by tape to destination. Messages to depots in this category are reduced to teleprinted form in London and transmitted by the facsimile process. Phonogram working is the verbal collection and dispatch of messages, inwards messages being sent by a Lamson pneumatic tube installation from the phonogram room to the transmitting room.

Documentation keeps track of all messages. If a period of 30 min. has elapsed since receipt of message and it has not been forwarded (normally transfer occupies far less than this) its whereabouts is chased. A running record kept of all messages to individual destinations is employed for this purpose. The procedure also provides traffic analysis at B.R.S. headquarters. The London local room is equipped with 11 teleprinters for messages to and from depots in this wide area, together with a telex machine for dealing with traders. Messages received in the tape transfer room on the reperforators are routed into this room as a visual check on those which are simultaneously going to the depot concerned. Incoming traffic from London depots is prefabricated by two teleprinter operators into tape which is reproduced at the reperforators in the transfer room for outward transmission.

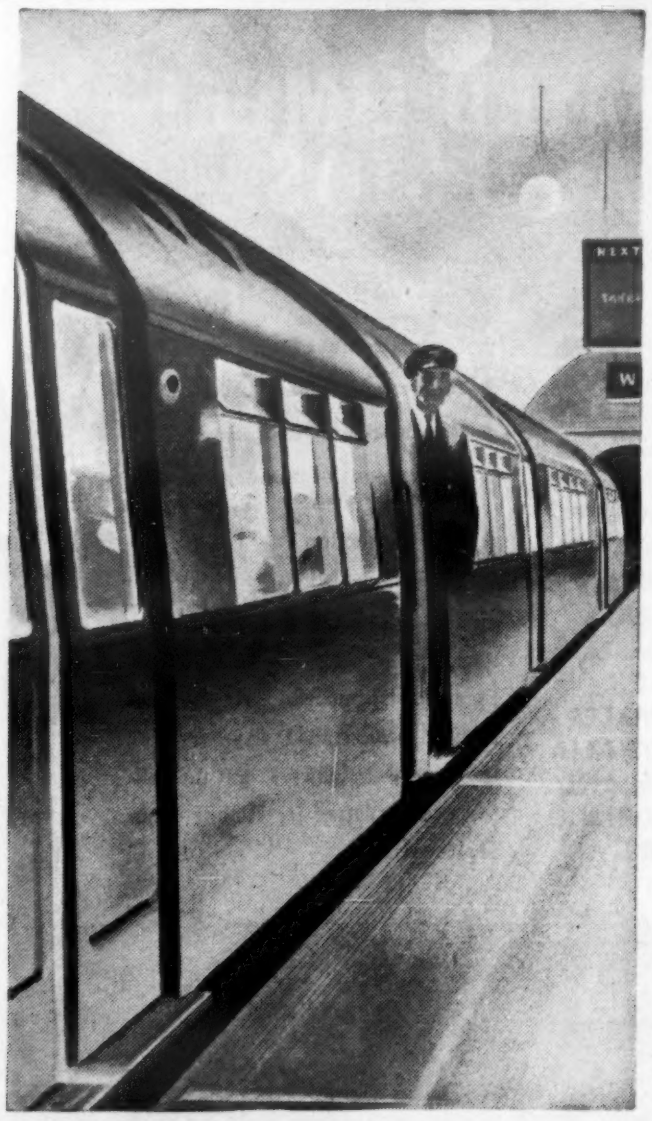
Merits of Duplex Tape Relay Channels

B.R.S. experience is that the duplex tape relay channel method, with these latest tape transfer machines, can handle four times as much traffic as a switching channel, and it has for that reason been adopted rather than the teleprinter automatic switching (T.A.S.) system. London centre is at present handling around 4,000 tapes, representing about 250,000 words daily between 9 a.m. and 6.45 p.m., a 25 per cent increase on last year at the same time. Over the national system as a whole, 817,000 messages originated in 1957, averaging 60 words in length. Moreover, the former unworkable priority system has been dispensed with. Experiments are already under way aimed at using the network during the idle night hours for transmitting accounting data in a form suitable for centralised electronic computers.

Economy of Movement

Throughout the installation of the new centre, work study has been closely considered, in order to eliminate or at least minimise walking movements. All message handling operations are either within easy reach or pneumatic tube or electronic means are at hand. Great care has also been taken to reduce noise by fitting cork floors, acoustic tiled walls and false suspended ceilings with sound deadening material. Extremely attractive modern decor and furniture has been incorporated, notably

(*Continued on page* 14)

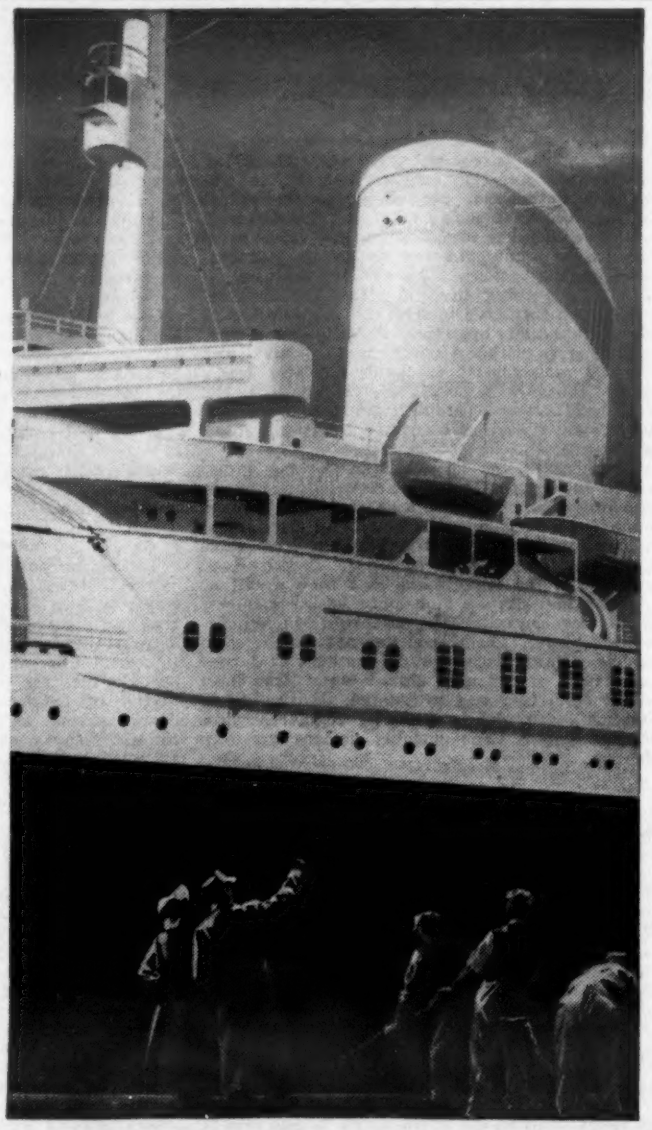


ALUMINIUM AT WORK

... from the familiar to the less familiar ...

A touch on the guard's push button and the doors close all along the train. Aluminium gives them durability and rugged strength. Day after day, with the minimum of care and attention, aluminium gives efficient, trouble-free service. It serves transport as efficiently in a hundred different ways — by sea as well as on land. Wherever robust strength, durability and long life are needed to keep down replacement and maintenance costs, there is an overwhelming argument for using aluminium.

Aluminium ingot produced by Aluminum Company of Canada, Ltd. is marketed by Aluminium Union Limited. The Company also exports the products of the various fabricating companies of the Aluminium Limited Group.



Aluminium Union Limited

(*Incorporated in Canada*)

THE ADELPHI, JOHN ADAM STREET, LONDON, W.C.2. *An ALUMINIUM LIMITED Company*
OFFICES, ASSOCIATED COMPANIES AND AGENTS THROUGHOUT THE WORLD

10

BUS SERVICES IN DANGER

Operators Continue Fuel Tax Attack

ANOTHER move to enlist support for the campaign to relieve the road passenger transport industry of the tax on diesel fuel oil took the form last week of a joint statement by the Public Transport Association, the Municipal Passenger Transport Association, the Passenger Vehicle Operators Association, and the Scottish Road Passenger Transport Association. It was pointed out that, ever since 1950, when this tax was first raised from 9d. to 1s. 6d. a gallon (by 1952 it became 2s. 6d.), they had been making representations to successive Governments warning them of the disastrous effect, short-term and long-term, which this tax would have upon the bus industry both in terms of higher fares and reduced services. These prophecies had proved only too true. Fares now stood at an artificially inflated level, and services, particularly in rural areas, were now being cut down to a really terrifying extent.

So far as general fare levels were concerned, it was not proposed at that stage to elaborate the effect of the tax beyond saying that it represented something between 10 per cent and 15 per cent of an operator's costs, varying with the type of vehicle used and the type of service. It was, however, an extremely important factor in the reduction of services. Rural services, which were generally the worst-paying services, were the most vulnerable. Many other services of a suburban and perimeter nature had already been substantially cut, though not yet to the same extent as the rural services; more were seriously threatened.

Rural Services

No one was more worried about the deteriorating situation in rural services than the bus industry itself. It had always been a tradition of which the industry was proud to run a very high percentage of services at a loss, these being subsidised by the better-paying services. Today, however, it was the scale of the losses incurred in running marginal and rural services that was making this plan impossible. Before the war losses on these services would range from, say, 1d. to 2d. per mile; today, the losses could be 1s. or more.

The industry appreciated that it was providing an essential public service and found it distressing to have to suffer ill-informed criticism because it was forced by the retention of this penal tax into making more and more cuts in rural mileage. It was fully aware from the national point of view of the evils, such as the withdrawal of farm labour, which derived from an insufficiency of rural buses, but the difficulties were not of the bus industry's seeking, and the miracle was that the cuts had not been much bigger than they had been hitherto—and that it had been possible to delay them for so long. This had been largely due to the industry's persistent pursuit of new economies in operation, such as lightweight vehicles with a lower fuel consumption, and, where practicable, of one-man buses. Lamentable though it might be, the present position was that country mileage was now being reduced wholesale and it must be a matter of real doubt whether in a few years there would be virtually any country services left at all. It was impossible to believe that this was a situation which any Government could desire.

The main cause of deterioration in rural services was lack of passengers. This was largely due to competition from other forms of transport, such as private cars, scooters, light motor-cycles and diesel-engined railcars. It was also due to television, which tended to keep potential passengers at home in the evenings. Both these factors were aggravated by artificially inflated fares resulting from fuel tax.

Result of Abolishing Fuel Tax

The removal of the tax on the fuel oil used by buses would be far and away the biggest single ameliorating factor in saving rural services. Fuel tax represented an "artificial" tax equivalent to 2½d. to 3d. a vehicle mile. If this were removed hundreds of rural services which were at present hopelessly uneconomic could be brought back either on to a break-even basis or at least on to a basis where the losses could be carried. Moreover, it should not be thought that the relief would be merely the direct relief given to the uneconomic rural services. As already explained, it had been traditional in the industry for years for the paying routes to subsidise the non-paying routes in the countryside. Today, however, the position was not merely that the lean routes had become so much leaner; but the fat routes had also become much less fat, and less able, therefore, to carry the lean. The problem was essentially one of margins.

As already stated, it was not only rural services that were threatened, though the main impact of the fuel tax had fallen upon them first. There was a general recession in passengers throughout the whole of the industry. This must inevitably lead to reductions generally in the most uneconomic services provided, such as peak-hour duplication.

What the Industry Asks

The industry was asking that the whole of the tax on its fuel oil should be abolished. Lest it should be thought that this would place the bus industry in a favoured position compared with other users of fuel oil, it should be remembered that fuel oil was only taxed at all when it was used on the roads and that the consumption for this purpose was only about one-sixth of the whole. When fuel oil was used for manufacturing purposes, or for heating, or even for use by the railways in their diesel railcars it was completely free of tax. Indeed, use for these other purposes actually increased last year by more than the whole current need by the bus industry. The total loss to the Treasury if the buses were freed also would be no more than £30 million annually.

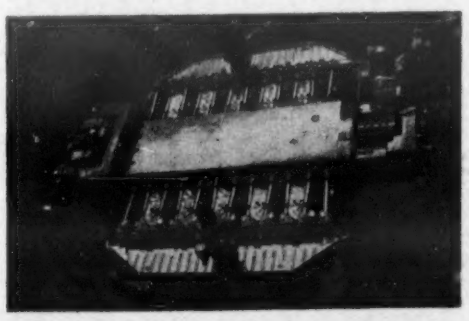
(*Continued on page* 16)

Features of the Geneva Show

(*Continued from page 5*)

insisted on by Swiss operators whose work is principally of a short-haul nature judged by general European standards. The recent Swiss entrant to the bus-building industry, Schindler Wagons S.A., Pratteln, is showing a new pneumatic suspension intended to replace the present coil springs in the independent swing-axle suspension used all round in the Schindler Alpine coach, a full-size 34-seat vehicle that is notable for employing a 165-h.p. V8 Kämper diesel engine mounted at the rear. The air bag used is the Firestone Airide circular-section unit.

Pneumatic suspension is also introduced by Draize S.A., Neuchatel, on a two-axle trailer, in this case using rectangular-section General Tire air bags. Both E. Wirz, Zurich, and A. Mattille, Lausanne, show vehicles equipped with the



Installation depth of this 200-h.p. Panhard petrol engine for an armoured scout car is about 15 in.

French-designed Bennes-Marrel multi-bucket tipping body equipment, which appears to be finding as much favour in Swiss construction and quarry work as elsewhere.

Strong German Representation

The German heavy-vehicle industry makes a stronger bid than ever for attention this year, with comprehensive contingents of every type of vehicle both on the stands and in the demonstration park representing Daimler-Benz, Henschel, M.A.N., Magirus-Deutz, Büssing, Krupp, Kässbohrer and others. Henschel offers higher-powered diesel engines equipped with Motosacoche-built Lanova Roots-type mechanical pressure chargers, by means of which, for example, the power of the 90-100 b.h.p. six-cylinder engine has been increased to 120 b.h.p. Magirus announced the exhibition of an air-suspension coach (the vehicle that was shown at Frankfurt last year equipped with Continental Rubber units) but this had not arrived when we left Geneva on Saturday. Krupp shows a 10-ton forward-control lorry with hinged grille and radiator with simple fastenings for quick access to the uniflow two-stroke diesel engine.

The enterprising Netherlands producer D.A.F. (van Doorne's), Eindhoven, also makes a strong bid with a good showing of its latest heavy vehicles, which include the D.A.F.-Leyland O350-engined 7-ton lorry and the new Leyland O600-engined 10-tonner. Czechoslovakian Praga and Skoda lorries appear of greatly improved finish than hitherto and in bright colours. Excellent finish and all the hallmarks of quality products are evident in the Swedish contingent, comprising Volvo and Scania-Vabis. Italian representation includes a comprehensive showing of Fiat lorries, passenger vehicles and tractors and of course O.M. heavy vehicles which, by virtue of the design tie-up with Saurer and Berna, can claim a fair Swiss market.

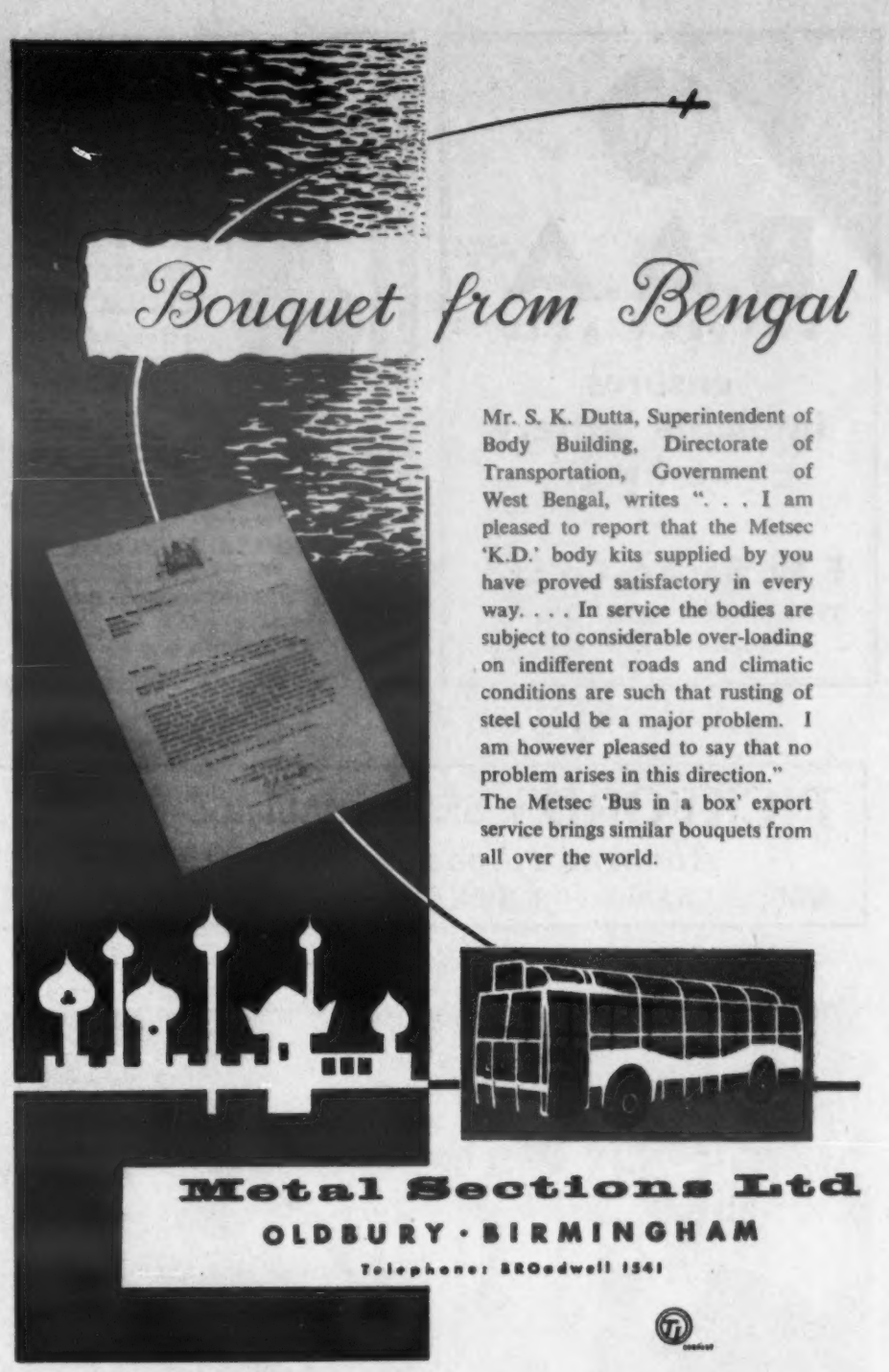
Giant Berliet

Pièce de resistance of the French displays, the giant Berliet six-by-six desert truck, is very properly housed in an outside tent reminiscent of the circus and, like many circus exhibits, is first viewed by most visitors with gasps of disbelief. This monster, designed for 60-ton loads for the current Sahara oil prospecting, weighs about 30 tons and is powered by the turbocharged 600-h.p. 12-cylinder Cummins diesel engine. Apart from the great size, its most noticeable feature is an almost complete conventionality of design and layout. First shown at last year's Paris Salon, from where it was said to be due to leave immediately for North Africa, it appears to be taking a rather circuitous route, but the Swiss are obviously pleased to have the opportunity of seeing it.

British commercial vehicle industry is represented by a comprehensive display of vans and smaller lorries of most makes, including the four-by-four Land-Rover and new Austin Gipsy; the unique Flexitor rubber independent suspension of the Gipsy was being examined with interest whenever we passed near the stand on which a partially stripped chassis and a complete Gipsy are well shown. The new Kew Dodge forward-control 7-tonner with Leyland O350 engine looks businesslike and saleable and B.M.C., Dagenham Ford, Commer and Karrier 5- and 7-ton vehicles bear close and critical inspection here, while the sectioned and motored Rootes two-stroke diesel engine appears to be attracting as much attention as it does wherever it is shown.

All the British forward-control cabs (and those of some other countries) are difficult to get into and out of compared with Swiss-built cabs. The Kew Dodge compares unfavourably with the Mowag van (alongside) in this respect, as do the Thames Traders and D.A.F. lorries vis-à-vis a Swiss f.c. cab on an Austin 5-ton van, but as the Dodge representative is ready to point out, the Kew-built cab is produced for about £100 whereas the equivalent Swiss product costs about four times as much.

Traditionally, British heavies are represented by a lone A.E.C. Regal with Lauber 34-seat luxury coachwork and an A.E.C. AV470 diesel engine shown by Barco Trading. British component manufacturers' products are shown on the joint Lucas-C.A.V.-Girling stand, by Trico-Folberth, Dunlop, Wilmot-Breeden and a few others. Victor Merz, Lucas group agent in Switzerland, makes a comprehensive show also and displays Hartridge diesel servicing equipment and a new exhaust-smoke meter, also by Hartridge. Interest is shown in a Girling disc brake display, which obligingly dismantles and reassembles itself automatically to show the simplicity of design and construction. Disc brakes are also shown by Dunlop and this company's stand hides rather than shows components of the Dunlop Pneuride air suspension. A pity, for the Swiss are interested and will use American or German units where they might have been persuaded to buy British if the Pneuride had been presented in some form of working exhibit.


Bouquet from Bengal
Mr. S. K. Dutta, Superintendent of Body Building, Directorate of Transportation, Government of West Bengal, writes ". . . I am pleased to report that the Metsec 'K.D.' body kits supplied by you have proved satisfactory in every way. . . . In service the bodies are subject to considerable over-loading on indifferent roads and climatic conditions are such that rusting of steel could be a major problem. I am however pleased to say that no problem arises in this direction."
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COMPANY MEETING

THE ENGLISH ELECTRIC COMPANY

Combating Inflation by Increased Efficiency

SIR GEORGE NELSON, Bart. (chairman), presiding at the 39th annual general meeting held on March 13 in London, said the consolidated results for the year once again showed an improved position with the balance on trading account up by £765,000 to £10,233,840. After depreciation, loan interest and income from trade investments, the profit before taxation was higher by £181,000 at £6,916,989.

After taxation and after transferring taxation relief to reserve, the profit applicable to the company in the consolidated account was £2,951,285 compared with £2,911,812 a year ago; an increase of £40,000. The Board recommended a final dividend on the ordinary stock of 10 per cent less tax, making 14 per cent for the year. Orders outstanding at the end of the year, for the Group as a whole, exceeded £250 million.

Turning to export, Sir George said he had mentioned last year that the Company had received orders from 137 different countries. He could say again this year that orders had been obtained from just as many parts of the world. The very wide range of products covered by sales, from the large traditional electrical products at one end of the scale, to small electric motors at the other, with aeroplanes to help swell turnover, had undoubtedly contributed to the successful year's working in the overseas territories.

Dealing with the problem of combating inflation by increased efficiency the Chairman said that there was a determination that Britain must stop the inflation which had dominated its peacetime economy during the last 12 years. From time to time a warning had been issued that higher wages without an equivalent increase in output would price us out of the export markets. Happily, other factors had prevented this happening for the moment, such as improvements in design, improvements in production methods and the increase in the volume of the Company's business. Requests for higher wages where no equivalent increase in output or efficiency was possible must be restrained.

The Company had only been able to retain its position this year by the collaboration of its workpeople and the technical staff in achieving improved efficiency. Sir George said we looked to the Government, nationalised industries and industry generally to pursue efficiency with similar energy in the form of deeds and not words.

Research remained one of the foremost activities of the Group. It had embarked upon the construction of greatly increased facilities at the Nelson Research Laboratories at Beacon Hill, near Stafford, and also at the Mechanical and Nuclear Laboratories at Whetstone, where scientists could concentrate still further on fundamental research.

Production Efficiency

Referring to production efficiency, Sir George said the Company had made great efforts, but it must do even more. The results were not limited to the Company, for electricity served the whole economy and many industries. The machines for modern power stations were, as a result of extensive research and development, progressively larger and more efficient than in earlier years. He took the opportunity to announce the recent receipt of an order from the Central Electricity Generating Board for two 275,000-kW turbo generators for installation in their projected Blyth "B" generating station. The design submitted by English Electric had been selected as the best on price, efficiency and technical excellence.

The general review of the year's work—in previous years included in the Chairman's speech—was this year published separately in a brochure entitled "Activities 1957-1958." The review states that the year 1957 showed substantial progress in the volume of both sales and production of the Company's traditional products, which were again records.

In 1957 the value of the orders placed from all over the world for electric and diesel-electric railway traction equipment was an all-time record. The Company has railway equipment in operation in 56 countries throughout the world; and while it is playing its part in the modernisation of our own railways, some 40 per cent of current production goes overseas, much of this being in the form of repeat orders, a gratifying indication of customers' satisfaction with British products.

Running in regular service is the world's most powerful diesel-electric locomotive—the 3,300-h.p. Deltic—designed and built wholly by the Company as a private venture. It was used by the British Transport Commission to haul between Glasgow and Manchester the Maple Leaf special train conveying the Canadian Government's Trade Mission.

The history of the English Electric Group in railway traction goes back to the very beginning of railways because the Group now includes both the Vulcan Foundry, Limited, and Robert Stephenson & Hawthorns, Limited, who since their foundation in 1830 and 1823 respectively, have been leaders in this field. The three companies—English Electric, Vulcan and Stephenson and Hawthorns—now form the strongest locomotive producing group in this country.

The report and accounts were adopted.

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Reliable Trunk Services to all Parts

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SWANSEA — Exchange Buildings — SWANSEA 54171/5
BRISTOL — 70 Prince Street — BRISTOL 22315
GLASGOW — 124 Clyde Street, C.1 — BELL 4081
LIVERPOOL — 11 Old Hall Street, Liverpool, 3 — CENTRAL 6386
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This is typical of the extra service being obtained from our CY Alloy Brake Blocks—which although remarkably resistant to wear, have no adverse effect on loco tyres. This is one of our most popular applications. After exhaustive tests many of the best known manufacturers of locomotives fit CY brake blocks as standard.

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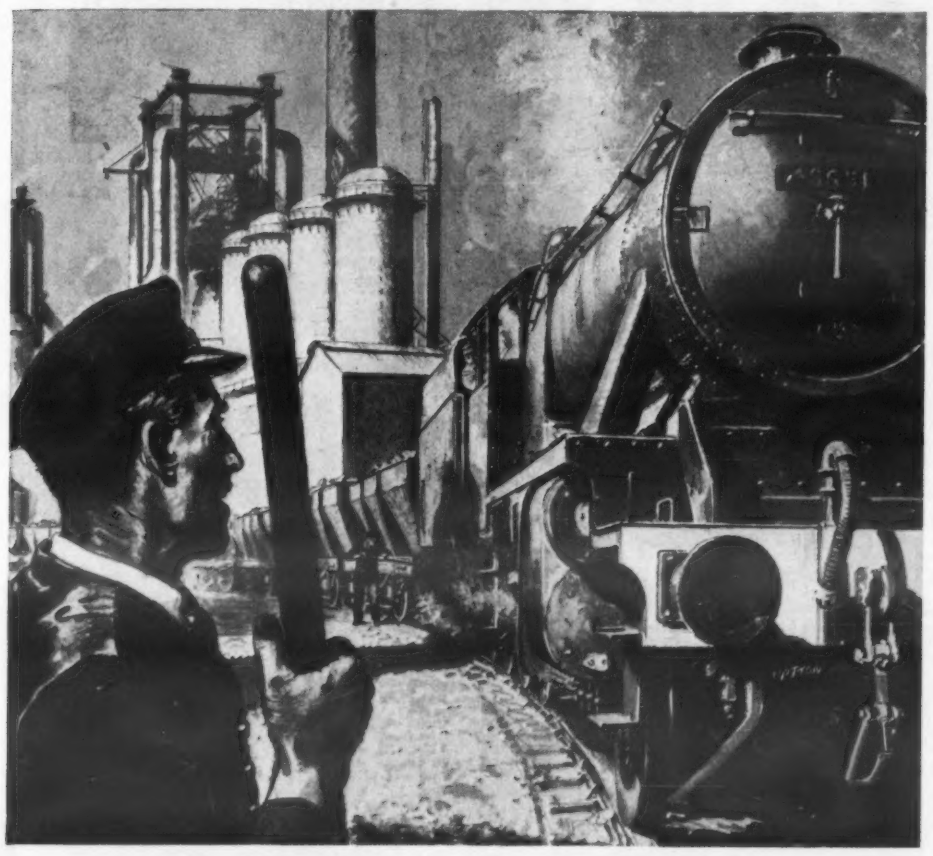


Railways need steel—
steel needs railways

ALL the way along the line (so to speak!) British Railways work in full collaboration with the Iron and Steel industry. Special trucks have been designed for the delivery of raw materials to the works; others for the delivery of finished iron and steel from the works. In fact, British Railways are always ready to consider designing special wagons for carrying any material in bulk.

From cars to caraway seeds

There is nothing British Railways cannot transport and everything is dealt with as a separate problem. For instance, bicycles, chemicals, furniture have special facilities; perishable goods have highly insulated containers—the most efficient of their kind in Britain.

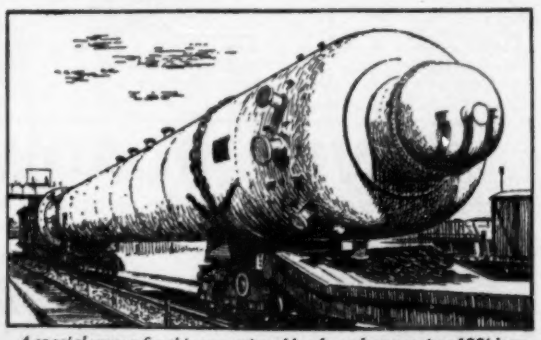
Near-express speeds at night

Most of the freight work is done at night when the lines are quieter. And now more and more freight trains are being fitted with vacuum brakes. Not only does this make for greater safety it also means trains can run at near-express speeds, and so increase line capacity and improve punctuality.

Whatever your product, whatever your problem, you can rest assured that British Railways will give you excellent advice and first class service. Just get in touch with your local Station Master or Goods Agent and your transport difficulties are over.

➡ **GREEN ARROW SERVICE** Operating for both overseas and certain home freights in full wagon loads, this service enables you to register consignments all the way to the destination station or port for only 2/6d. Ask your local Station Master or Goods Agent for full details.

Steel plate unloaded by magnetised grab.



A special wagon for this exceptional load—a depropaniser 128′ long.

BRITISH RAILWAYS

TRADERS TRANSPORT NEEDS

Mansion House Association Luncheon

THE annual luncheon of the Mansion House Association on Transport took place in London at the Connaught Rooms on March 14 when Mr. M. F. Barnard, president of the association, presided. The toast of "The Ministry of Transport and Civil Aviation" was proposed by Mr. J. W. Bannard, who disclosed that his election as chairman of the council was a very recent development in the affairs of the M.H.A. They were all sorry that Parliamentary business had prevented Mr. David Renton, Joint Under-Secretary of State at the Home Office and, until he accepted ministerial office, a keen member of the association's Parliamentary committee from being present, but they were all the more grateful to Sir Gilmour Jenkins for stepping into the breach at short notice.

The Mansion House Association was getting on for 70 years old and was the oldest of the transport users associations. It had, however, kept pace with events and collaborated closely with other organisations in the furtherance of its aims, particularly with the Transport Co-ordinating Committee and the Traders Traffic Conference. The most important event of the past year, so far as they were concerned, had undoubtedly been the introduction of the railway merchandise charges scheme. This represented a very great advance even though some traders might find themselves in a less advantageous position than before. It was up to the British Transport Commission to make good use of the new freedom and it should remember that it would make more friends if it was prepared to take chances. Only British Railways knew the costs involved and could say where it could be most competitive.

Congratulations on T.R.T.A. Parking Fight

It was only fair, said Mr. Barnard, to admit that much had already been done, but he would suggest that there were precious few cases where it would not be best to build up round the small amount of traffic that already existed. The main interest of the M.H.A. was to see a sound transport system and it welcomed every contribution to that end. In that connection tribute must be paid to the work done by the London division of the Traders Road Transport Association in connection with the parking ban. Led by Mr. Lamborn, it had put up most convincing arguments. Another noteworthy event of the year had been the agreement, at last, by British Railways that indemnities would not be needed. As to the old and vexed question of wagon demurrage, they were all in agreement that the reduction in rolling stock and better use thereof must be a first essential, but he still felt that more could be done with the increase of transit speeds than in the reduction of terminal time.

The Ministry of Transport had consulted the association on a number of matters and it liked being asked to help. It also liked basically the Government policy on transport. It was not interested in cut-throat competition nor was it anxious to see a superfluity of transport with all the waste that involved. At the present time what the M.H.A. most desired was an acceleration rather than slowing down of the railway modernisation programme and the speeding up of the provision of more and better roads.

Efficiency of Transport

Replying to the toast, Sir Gilmour Jenkins, Permanent Secretary, Ministry of Transport and Civil Aviation, said how appreciative his Ministry was of having responsible transport bodies such as the Mansion House Association to proffer advice. The importance of transport to industry was still not really appreciated by the general public. He had said before, but it bore repetition, that a civilisation was determined by the efficiency of its transport services. Providers of transport could not create demand to any great extent. They could only meet it when it came and there was very considerable freedom of choice. It was 25 years since road haulage licensing had been introduced and he thought that it was a great achievement that the system should have worked so well as to remain virtually unchanged. He appealed for support for the forthcoming road freight census.

Mr. Bannard had referred to the need for new roads. The Ministry was delighted that it now had a real road programme and happy that the London—Birmingham motorway would be ready by October of next year, something which it had not thought possible in the time available. There had also been a reference to the parking problem. It should be possible to alleviate this with the co-operation of all concerned, but there was no escaping the fact that a lot of standing vehicles should not be there at all. It was hoped that by moving back the time of restriction for vehicles loading and unloading from 11.30 to 8.30 a.m. and having those extra three hours without time limit quite a lot could be achieved. Users could also assist by checking the times where vehicles should load and unload in relation to traffic congestion.

The Guests

Mr. W. J. Phillipson, a vice-president of the Mansion House Association, proposed "The Guests." He welcomed Wing-Commander E. E. Bullus and Mr. R. Gresham Cooke, members of its Parliamentary Committee, Mr. C. P. Hopkins and Mr. K. W. C. Grand as regional general managers of British Railways, and Messrs. J. C. Poole and H. H. Phillips as members of the Transport Tribunal. Lord Derwent, as chairman of the British Road Federation, had become almost synonymous with roads, and Major-General G. N. Russell, chairman of the board of management of British Road Services and its general manager, might be said to be B.R.S., an organisation which was to be congratulated on providing them with services when and where they were wanted.

General Russell, who replied, disclaimed such complete responsibility for his organisation. Transport was indeed a service and it was up to it in all its forms to do its utmost for trade and industry. It was deriving much stimulation from the amount of attention and thought being paid to it. There were now aeroplanes and roads, railway modernisation and lots of lorries all keyed to work to one pattern. His recent visit to the United States had convinced him that that country, whatever people said, was not basically ahead of Britain in moving things about and getting things done. Certainly we could learn from them, but that was a different matter. There was talk of recession, but he was convinced that if we adapted ourselves properly we could use all the transport we had at our disposal.

RUBBER FOR AIRSTRIPS

Use in Australia

RUBBERISED bitumen has been selected for sealing the airstrips at Junction Airport, Launceston, Tasmania, following successful use of this material at Melbourne Airport, at Sale, Essendon and other Australian airfields and roads. The surfaces of the airstrips, which were in a bad condition before treatment, have been given a protective finish similar to that applied at Melbourne Airport in 1954, containing both latex and fast-dissolving rubber powder. The mixture used at Melbourne consisted of 80/100 bitumen cutback with asphaltic oil, together with 1½ per cent and 2½ per cent of rubber powder, used in two separate experiments.

Sections of the strip were resealed with ordinary bitumen for comparison. Two years later, the rubberised bitumen sections were still in excellent condition whereas those without rubber had cracked badly, allowing water to penetrate and weaken the underlying pavement. After two years, the Commonwealth Department of Works expressed satisfaction with the work and commented on the way the rubberised mixture had stretched across previous cracks whereas the plain bitumen had cracked again. Experiments on the roads began in 1951, when sections of state highways and suburban roads in Victoria, New South Wales, Queensland, South Australia and West Australia, were laid down with the new mixture.

Hub of B.R.S. Teleprinter System

(*Continued from page 12*)

in the rest room for staff off duty. All wiring and pneumatic tube plumbing is concealed.

Arrangements are now in hand to convert the Glasgow tape transfer centre, which performs like operations for the whole of Scotland. Again a completely new centre is under construction which will incorporate a torn tape press-button console recently developed by the Post Office for medium-sized installations. It is operated by one girl who sits at a U-shaped array of five receiving printing reperforators and a three-gang automatic transmitter, tearing completed tapes from the reperforators and automatically retransmitting them to any of 10 destinations through a press-button route-selector panel. This conversion will result in an improved service for Scotland and further savings in operating costs.

Although the press-button system just introduced may remain in service for about five years B.R.S. is never complacent about its teleprinter network and regards even the London centre just opened as potentially obsolescent. Punched paper message tape has a life measured in minutes, and the next logical step is to do away with it in favour of fully automatic electronic storage, and switching and routeing of teleprinter signalling impulses through a magnetic drum or matrix store from which the signals may be erased, thus affording it an indefinite life.

The building which houses the London centre is being completely transformed and, together with a large new adjoining office block on which work is to start shortly, will accommodate the entire administrative staff of the South Eastern Division of B.R.S., together with the South Eastern parcels area office and the London district general haulage and contracts offices. These offices are at present located respectively at Carlow Street, N.W.1, Goswell Road, E.C.1, Carlow Street, and Bonhill Street, E.C.2.

Messages being transmitted on facsimile machines; right, the documentation and phonogram positions. Lamson pneumatic tube stations are seen in the background

SOCIAL AND PERSONAL

The Late Major H. E. Crawfurd

WE regret to record the death, at the age of 76, of Major H. E. Crawfurd, A.F.C., a former president of Associated Road Operators and vice-president of the National Road Transport Federation. He was a member of the Royal Commission on Transport which sat from 1928 to 1931 and was largely concerned in plans for the Road and Rail Conference which achieved a measure of agreement between the railways and road haulage in 1939.

* * *

A dinner has been arranged by the Transportation Club for April 22 at 7 for 7.30 p.m. The guest of honour will be Sir Arthur Kirby, formerly general manager of East African Railways, and now Commissioner for East Africa in London.

* * *

Mr. A. A. Harrison, M.Inst.T., appointed chief freight officer in the newly created traffic department of British Railways Central Staff, started his railway career with the London and North Western Railway, but joined the North Eastern Railway in 1922. After training as a traffic apprentice he was engaged in staff work in the chief general manager's office of the L.N.E.R. In 1926 he was appointed assistant to the Southern Area district manager at Leeds. Appointed road motor superintendent for the North Eastern Area in 1933 he became cartage manager in 1941 and was responsible for the development of railhead collection and delivery in

Mr. A. A. Harrison

North East England. In 1943 Mr. Harrison went to the Southern Area of the L.N.E.R. as acting assistant goods manager, being confirmed in this appointment in 1947. In the following year he became executive officer (road transport) to the Railway Executive, remaining in this post until his appointment as chief co-ordination officer in 1954. He visited East Africa in 1954 to advise East African Railways upon the introduction of collection and delivery service. He was appointed chief charges officer of the B.R. Division in 1955 and in that capacity assisted in the promotion of the railway merchandise charges scheme besides developing the new charging arrangements under that scheme. Mr. Harrison was a member of council of the Institute of Transport from 1953 to 1956.

* * *

Mr. H. G. Thompson, transport liaison officer of T. Wall and Sons (Meat Products), Limited, has retired.

* * *

Mr. M. F. Barnard has been re-elected president of the Mansion House Association on Transport and Mr. J. W. Bannard (assistant to the transport adviser to the board of Unilever, Limited, was elected chairman of the council.

* * *

Mr. E. M. Gibbs, sales manager, has been appointed general sales manager of the Austin Motor Export Corporation with Mr. S. A. Woodgate and Mr. E. Rogers as assistant sales managers. Mr. Woodgate will be the technical adviser to the directors and general sales manager; general sales promotion and administration of world markets for Austin vehicles will be controlled by Mr. Rogers.

* * *

The annual luncheon of the National Conference of Road Transport Clearing Houses will be held on April 1 at the May Fair Hotel. The Joint Parliamentary Secretary to the Ministry of Transport, Mr. G. R. H. Nugent, will be the principal guest. The annual general meeting of the Conference will be held on the afternoon of the same day, also at the May Fair Hotel.

* * *

Messrs. David Blee (general manager, London Midland Region), F. Grundy (chief traffic officer, British Railways Central Staff), J. P. Young (Scottish divisional manager, British Road Services) and H. L. Hopkins (chief docks manager, Hull Docks) have been appointed to the Coastal Shipping Advisory Committee, set up under section 71 of the Transport Act, 1947, to replace Messrs. J. R. Pike, J. B. Hastie and J. Donovan, who have retired, and the late Mr. C. K. Bird.

* * *

Mr. D. A. Stringer, assistant dock manager, Newport, has been appointed docks manager, British Transport Docks, Fleetwood. He succeeds Mr. T. Tulloch, now shipping and port superintendent at Parkeston Quay, Eastern Region. Mr. Stringer entered the service of the former Southern Railway in the goods department in 1938 and in 1948 was appointed to headquarters of the former Docks and Inland Waterways Executive. In 1956 he became assistant dock manager at Barry Docks and in January, 1957, was appointed assistant dock manager at Newport Docks.

* * *

We regret to record the death of the Right Hon. Herbert Robin Cayzer, first Baron Rotherwick of Tylney, at the age of 76. A son of the founder of the Clan Line, he had always been especially concerned with shipping and played a large part in 1941 in the establishment of the General Council of British Shipping. He was also prominently concerned in the establishment of the British and Commonwealth Shipping Company which merged the interests of the Union-Castle Mail Steamship Co., Limited, with those of the Clan Line. Chairman of the last named, he took up similar office with the new company and with Union-Castle. His interests had in recent years been widened to include air transport, a business wherein the Clan Line partners the Hunting group of companies. He was a past president of the Chamber of Shipping of the United Kingdom and of the Institute of Marine Engineers, and chairman of the British Ship Adoption Society.

Former L.P.T.B. Mechanical Engineer

WE deeply regret to record the death of Mr. W. A. Agnew, who was chief mechanical engineer (railways), London Passenger Transport Board, at the time of his retirement in 1935. He was 84. Mr. Agnew served with Glasgow Corporation Tramways before joining the Metropolitan District Railway in 1904. He became chief mechanical engineer of the London Underground Electric Railways in 1921 and played a great part in moulding its mechanical engineering policy.

* * *

The Metropolitan and South Eastern area of the R.H.A. has elected Mr. A. E. Drain (Deptford) as its chairman for the year 1958-59. The vice-chairmen are Messrs. R. C. W. Nickolls (Folkestone), J. T. Turner (Willesden) and P. H. R. Turner (London, E.1).

* * *

Mr. E. A. W. Dickson, M.Inst.T., who is now chief passenger officer, traffic department, B.R., was educated at Haileybury College and Gonville and Caius College, Cambridge. He joined the L.N.E.R. as a traffic apprentice in 1926 and after gaining experience in the commercial, operating and locomotive running departments, entered the chief general manager's office in the rates and statistics section in 1929. In 1932 he was attached to the district superintendent's offices at Newcastle and Sunderland for special duties and in 1933

Mr. E. A. W. Dickson

returned to headquarters to take charge of the shipping section in the chief general manager's office. From 1934 to 1939 he was assistant district goods manager, Newcastle upon Tyne, and in 1939 was appointed rates and statistics assistant to the C.G.M. In 1941 he was loaned to the Railway Executive Committee for special statistical work and in 1942 became secretary of the L.N.E.R. committee on postwar development. Mr. Dickson was appointed assistant secretary of the L.N.E.R. in 1943 and on nationalisation became treasurer-assistant to the chief financial officer, Railway Executive. In 1954 he was appointed assistant director of funds, B.T.C., and in 1955 chief passenger officer in the chief commercial officer's department, B.R. Central Staff. Mr. Dickson is an honorary auditor of the International Railway Congress Association and a member of the transport panel of the Transport Tribunal.

* * *

We record with regret the death of Captain G. P. Olley, the most famous of Britain's charter pilots since the early days of civil aviation. He inaugurated the London—Amsterdam service for K.L.M. in 1920 and the Imperial Airways Silver Wing service between London and Paris in 1927 and was the first pilot to fly one million miles before he left Imperial Airways in 1933 to form his own Olley Air Service. He was 64.

* * *

Mr. H. F. Pallant, M.Inst.T., appointed chief operating officer, traffic department, B.R., joined the Great Eastern Railway in 1916, and after gaining experience at numerous stations he became a traffic apprentice on the L.N.E.R. in 1925. On completion of his training in 1929 he was appointed assistant yardmaster at Bradford, and occupied similar posts at Whitemoor and Spitalfields before moving to Liverpool Street as assistant stationmaster in 1932. Between 1935 and 1939 Mr. Pallant

Mr. H. F. Pallant

successively became assistant to the superintendent, Southern Area (Eastern section), L.N.E.R., assistant district superintendent, Edinburgh (Waverley), and general assistant to the superintendent, Southern Area, L.N.E.R. In 1940 he was appointed district superintendent at Nottingham, L.N.E.R., moving in a similar capacity to York in 1943 and Hull in 1945. Mr. Pallant became assistant superintendent of the N.E. Area of the L.N.E.R. in 1946, divisional operating superintendent, London Midland Region, Crewe, in 1953, and freight officer in the chief commercial officer's department, B.R. Central Staff, in 1955.

* * *

We record with regret the death, at the age of 86, of Lieut.-Colonel Mervyn O'Gorman, C.B., M.I.C.E., M.I.Mech.E., M.I.E.E., well known in both the aeronautical and road motor fields. He was a former Director-General of Military Aeronautics at the Royal Aircraft Establishment at Farnborough, Hants and was subsequently on numerous committees concerned with aviation and road affairs.

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IMPORTANT CONTRACTS

Follow-Up Order from U.S.S.R.

THE British consortium company Rustyfa, Limited, which was founded last summer for the purpose of supplying the plant and equipment for a large tyre factory, which will produce 2 million tyres yearly and is now being built in the Ukraine, has been awarded further contracts from the Soviet Union valued at more than £5 million. These latest contracts, together with those announced last September, bring the total of Rustyfa's contribution to Britain's export drive up to £12½ million and there is every hope that still further contracts will be negotiated in the not too distant future. The latest group of orders placed covers pneumatic handling and weighing equipment, impregnation plant, rubber processing plant and associated electric motors, tyre testing equipment, electrical distribution sub-station equipment and control panels. All the plant will be manufactured and built in Britain and some 50 firms, in addition to the member firms of the Rustyfa consortium, have been sub-contracted for the production of equipment. Some of the principal items of plant and equipment will be the responsibility of the following companies: Crompton Parkinson, Limited, transformers at Hayes, Middlesex; high-voltage and low-voltage switchgear for all 21 substations planned to date, at Chelmsford; and a large number of electric motors for auxiliary equipment at both Chelmsford and Guiseley; Lancashire Dynamo Holdings, Limited, large motors for plant drives at Manchester, and associated control equipment through its subsidiary company Lancashire Dynamo Electronic, Limited, Rugeley; Simon Handling Engineers, Limited, pneumatic weighing and handling equipment at Stockport, and Geo. W. King, Limited, conveyors and automatic handling equipment at Stevenage.

New Work at Chiswick

London Transport has placed a contract worth more than £11,000 for overhead cranes in the new strip and clean shop at Chiswick Works with Geo. W. King, Limited, Stevenage, Herts.

Batteries for RM Buses

The first 20 RM-type buses which have been ordered by the London Transport Executive will use Exide batteries fitted with special terminals to meet L.T.E. requirements. An order for 80 Exide 3HMFG13-KBL batteries has been placed with Chloride Batteries, Limited, of Clifton Junction, Manchester. Four of these 6-volt units will be fitted to each bus. The 3HMFG13-KBL has a capacity of 174 amp. hr. at the 10-hour rate, is fitted with dual separation consisting of glass wool retainers and Porvic sheets, and is built into a hard rubber container.

Diesel Service Equipment for U.S.A.?

Increased export orders are likely for British diesel servicing equipment following news that the American Bosch Arma Corporation has officially approved the use on its equipment of the Majestic fuel pump test bench, manufactured by Leslie Hartridge, Limited, Buckingham. New agents in America and Canada announced by the company are Diesel Injection Sales and Service, Inc., 808 Union Street, Norfolk, Virginia, and Lansair, Limited, 1001 Beaumont Avenue, Montreal. The latter will act jointly in Canada with existing agent, Auto Electric Services.

SHIPPING and SHIPBUILDING

U.K. Needs More Protection

A MOTION has been tabled by 86 M.P.s calling on the Government to take further measures to increase the competitive power of British shipping. It infers that the recent increase in the investment allowance on building from 20 to 40 per cent was not enough and expresses extreme concern at the virtual freedom from taxation enjoyed by ships flying certain flags of convenience. After having been completed in only 24 weeks, the new 10,000-ton motor ship *North Devon*, for Newcastle owners, faces bleak prospects in view of the prevailing freight markets. Her owners say that if she can earn half her annual rate of depreciation she will be doing well.

Japanese Pacific Plans

RECENT announcement of projected British trans-Pacific services has greatly stimulated the interest of Japanese shipowners in building up a trans-Pacific fleet. Mr. Yoshiya Ariyoshi, managing director of the Japanese Nippon Yusen Kaisha Line, has said his company has drawn up designs to build two 25,000-ton liners.

Reliance on Immigration Traffic

THE new 45,000-ton P. and O. liner for the United Kingdom—Australia and Pacific run is to be called *Canberra*. She will be the largest and fastest ship built in the United Kingdom since the two Queens and also the largest turbo-electric liner built in Great Britain. A continuance of the active migration programme was necessary for the company to justify the investment of £15 million sterling in this ship, said Sir Donald Anderson, deputy chairman of P. and O., in Canberra this week. A ship of this size and cost could not be made to operate at a profit on United Kingdom—Australia trade alone, they looked to obtaining adequate earnings by extending voyages across the Pacific. Since 1945 the P. and O. group had invested £A85 million in new passenger and cargo vessels for Australian trade, an investment so massive that it could be matched by few, if any, overseas companies.

Colombo Nationalisation Bill

OUTPUT of work done at Colombo has dropped to the lowest on record in recent weeks. Tonnage worked on a ship is as low as 200 tons a day. Meanwhile, the Colombo Port Cargo Handling Corporation Bill is now ready and is being discussed by the Cabinet. Eleven thousand harbour workers and nearly 1,000 non-labour staff will be taken over by the Corporation under this nationalisation measure. A board of five members, which includes a working chairman, will administer cargo handling. There are at present four landing companies, one Government cargo handling unit and 11 stevedoring companies. It is hoped that the first purchases by the Corporation will be 50 lighters so that loading and unloading can be stepped up considerably. One of the reasons for limited tonnage handling at present is the shortage of lighters. A radio-telephone system between the Corporation, ship and working points where gang labour is concentrated will be operated. Walkie-talkie operators will patrol the port and make continuous reports. The Corporation hopes to function as an employer from May 1.

Bus Services in Danger

(*Continued from page 13*)

If fuel tax on the bus industry was not abolished during the coming Budget, the cuts in rural (and other) bus services, already alarming, were likely to become catastrophic. The majority of undertakings which had already had to make substantial cuts had now reached the position where further pruning of services was impossible; they would have to discontinue many services completely and surrender their licences. In the result, many villages would be deprived of their bus services altogether. Though rural services would (and have been) the first to go, the suburban and perimeter services would ultimately follow suit.

Municipal Problems

In a supporting statement the Municipal Passenger Transport Association pointed out that nearly 17,000 motor buses (in addition to about 3,500 trolleybuses and tramcars) were operated by its 95 members—as a service to the ratepayers. On many of the routes, operation was regarded purely as a social service—for they were most uneconomic to run. But local authorities felt under an obligation to maintain the running of these services in order to provide the ratepayers with adequate travelling facilities. Unfortunately, rising costs and heavy taxation were making it increasingly difficult for operators to meet their obligations in this respect.

Operators in the municipal field were, of course, more closely concerned about their suburban and perimeter services. They had arrived at the stage at which their financial position is precarious. The M.P.T.A. recently undertook a survey of this position and the results showed that more than two-thirds of the municipal operators in this country would end the current financial year with deficits amounting, in total, to over £1 million. Fewer passengers were now using the services—and the trend was gathering momentum! During the five-year period to March, 1957, local authority operators lost about 7 per cent of their passengers. But the quickly worsening position became more evident when late 1957 figures were compared with a similar period in 1956. Statistics showed that as many as 10 per cent fewer passengers were being carried in 1957. Failing some financial relief from the Government in the very near future, the position was going to be a grim one, with a special rate having to be levied in many localities in order to subsidise passenger transport.

Progress at Barking and Ripple Lane

(*Continued from page 7*)

necessary to demolish the existing Renwick Road bridge and reconstruct it to a greater overall length. The new bridge is entirely of concrete with a pre-stressed deck and three spans, two of 47 ft. each and a centre span of 130 ft.; traffic is at present served by a temporary Bailey bridge. Three overhead electric power lines and a vast number of underground cables from Barking Power Station have also had to be dealt with. The underground cables are now housed in two subways, whilst the overhead lines are being diverted clear of the site. An interesting feature of the staging is that the main line formerly ran through the centre of the site. This has at present been diverted to the south in order to give the contractors more freedom. Finally the down main line will be to the north, and the up main line to the south of the yard.

Soil Conditions

Ground conditions throughout the site are generally extremely poor as it is on an old swamp with a standing water level at a depth of from 6 ft. to 8 ft. Trial bores indicated an average of 5 ft. of made-up ground, 14 ft. of peat and 8 ft. of ballast, all overlying an indefinite depth of sound clay. Because of this it was decided to pile all structures. In general the soil cannot sustain more than 12 ft. of fill, so that in constructing the hump it was necessary to excavate all materials down to ballast level (20 ft.) and then to build up again with selected materials to the required height. Altogether the total quantity of excavations amounts to 180,000 cu. yd. and the total fill to 520,000 cu. yd.; much of the latter was to fill in waterlogged pits. As at Barking the sulphate content of the water has required the use of super-sulphated cement below gound level.

The whole of the civil engineering work on both schemes is being carried out by W. and C. French, Limited, and the whole work is under the general direction of the civil engineer's department, Eastern Region.

HAULIERS IN A TEAM

(*Continued from page 11*)

based at a depot 200 miles away. Transport Association endeavours to break down this barrier of doubt and suspicion by reference to its high standards for membership. It is also realised that special care is necessary to ensure that a suitable and properly equipped vehicle, adequately covered by insurance, is supplied for traffic requiring particular attention.

The mutual trust which T.A. aims to foster between its members and the code of fair trading which is implicit in all its dealings, reinforced by minimum conditions of carriage and goods in transit insurance, may in fact be thought to lift this sort of inter-working rather above the general character of sub-contracting and the customer is justified in regarding it in that light. It is rather like a jointly operated bus route in which both participants provide an identical quality of service, including the acceptance, for example, of the return tickets issued on the other's buses.

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